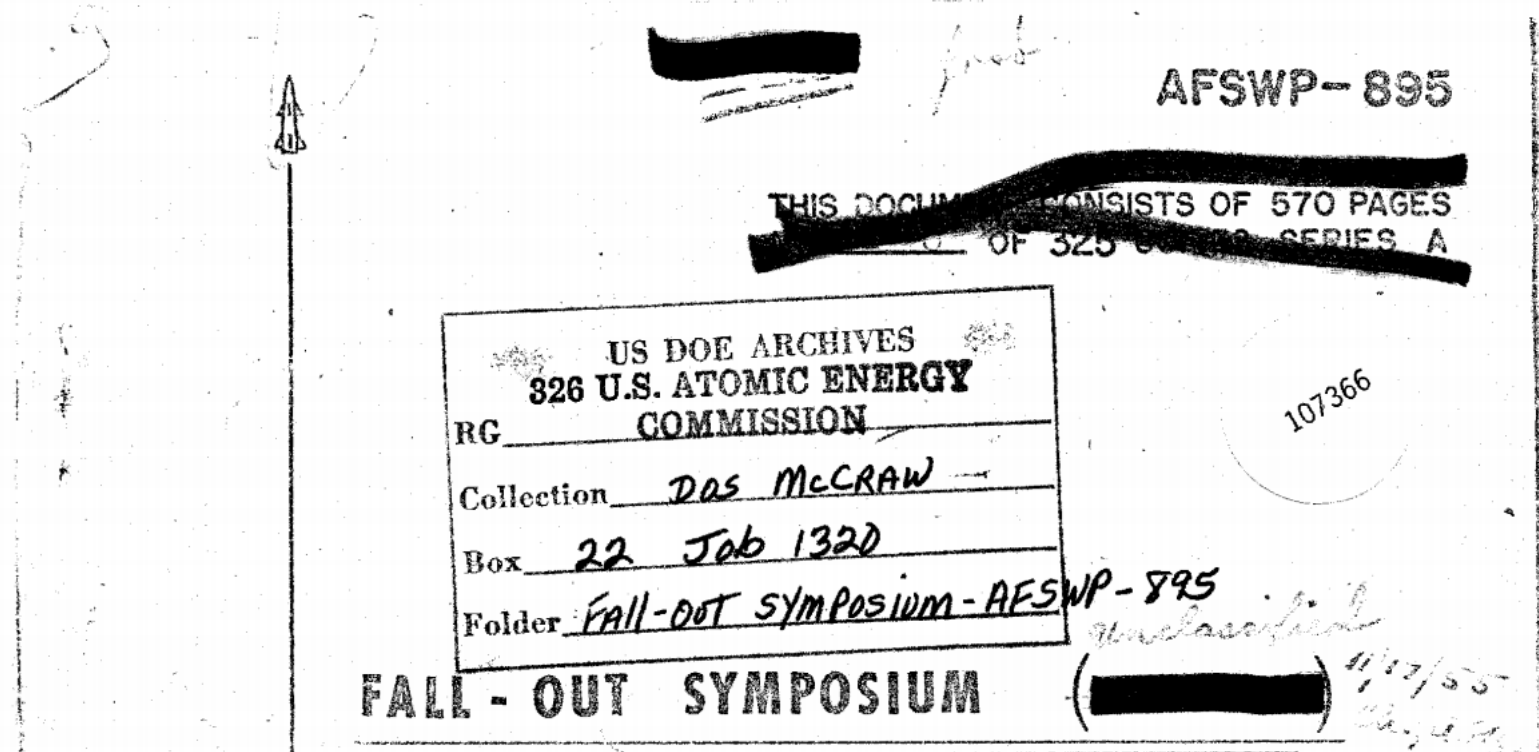


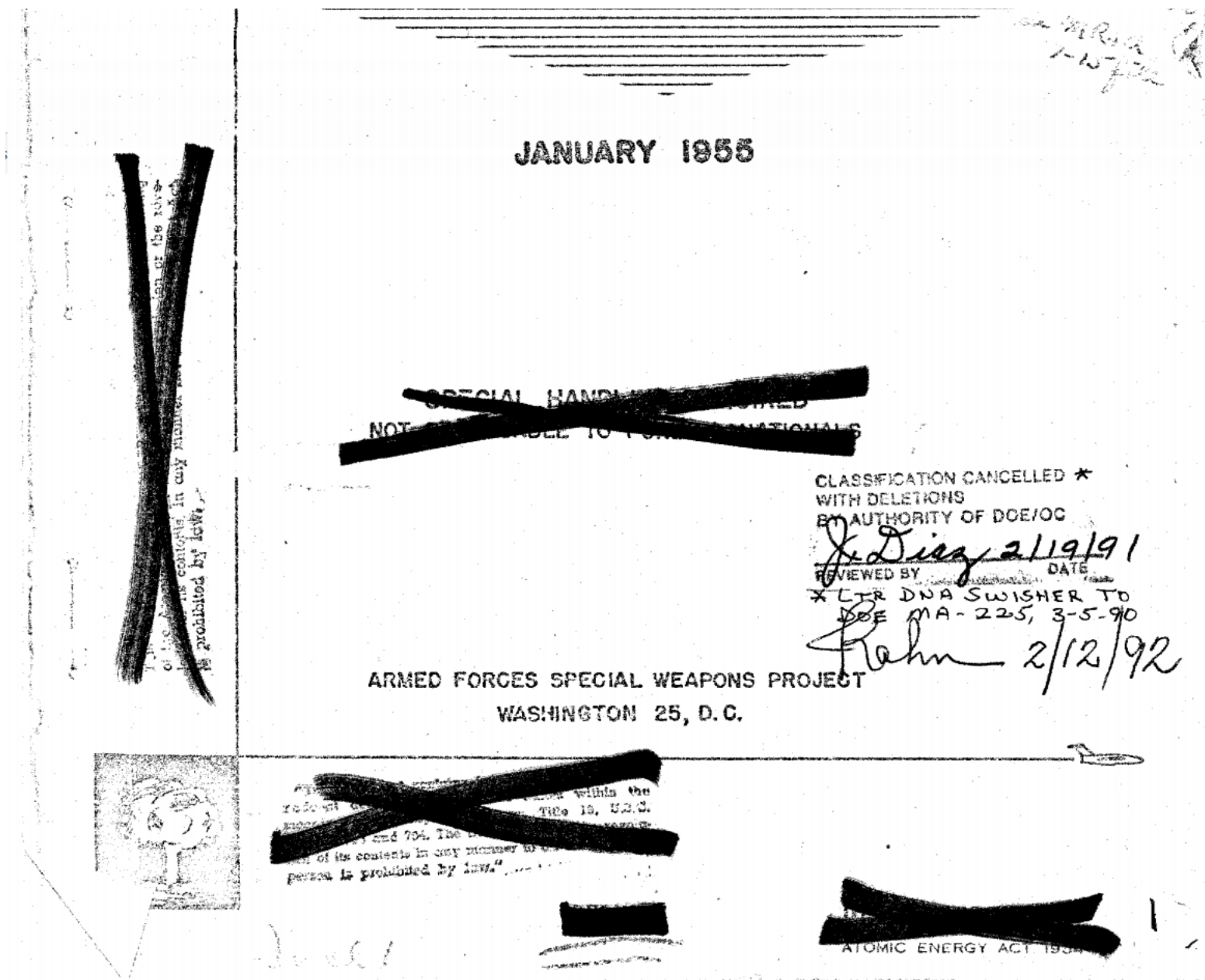
The effects of nuclear weapons. Credible nuclear deterrence, debunking "disarm or be annihilated". Realistic effects and credible nuclear weapon capabilities for deterring or stopping aggressive invasions and attacks which could escalate into major conventional or nuclear wars.

Monday, January 22, 2018

The January 1955 secret Fallout symposium of the AFSWP. LAST UPDATED 5 April 2018 with a declassified neutron bomb report LA-9004, evidence from a Russian dissident for Putin's Novichok nerve gas, and CND leader Corbyn racial hatred of Jews in news

Thank you to Martha DeMarre of the Nuclear Testing Archive, Mission Support and Test Services (MSTS), Contractor for the Nevada National Security Site of Uncle Sam, **for today emailing me a scan in two parts of the terrific (formerly) secret January 1955 AFSWP Fall-Out Symposium, U.S. Armed Forces Special Weapons project report AFSWP-895, which I've put on internet archive (link is here).** This is the first major analysis (566 pages in its declassified form) of data from Operation Castle on fallout, the first major fallout hazard experience to be documented in great detail in 1954! The report was listed but a PDF was not previously available on the **U.S. Department of Energy Opennet site** (which **currently highlights Edward Teller's dismissal of secrecy delusions in the PDF linked here**). Secrecy is damaging, as mentioned in the **previous post on this blog, because it keeps the public uninformed of the key technical arguments that underpin scientific controversies, allowing abusive propaganda from bigoted, ranting communist lunatics to become "mainstream dogma", accepted by deluded, elitist pseudo-socialists** as occurred after Darwin's cousin Sir Francis Galton used "authority" to push eugenics pseudo-science with a pipe dream camouflage of utopia.





AFSWP895: January 1955 Fallout Symposium, secret, front cover.

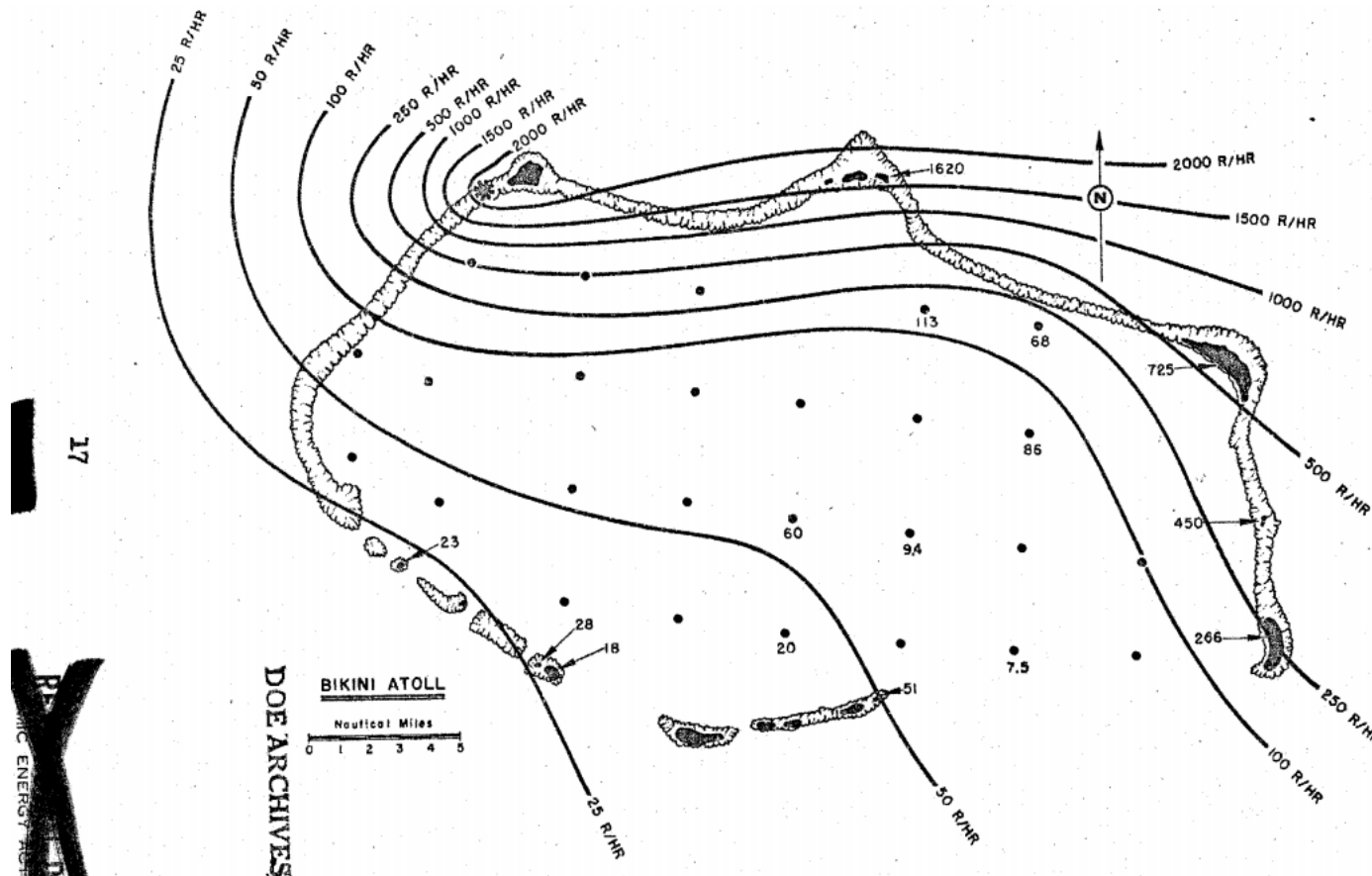
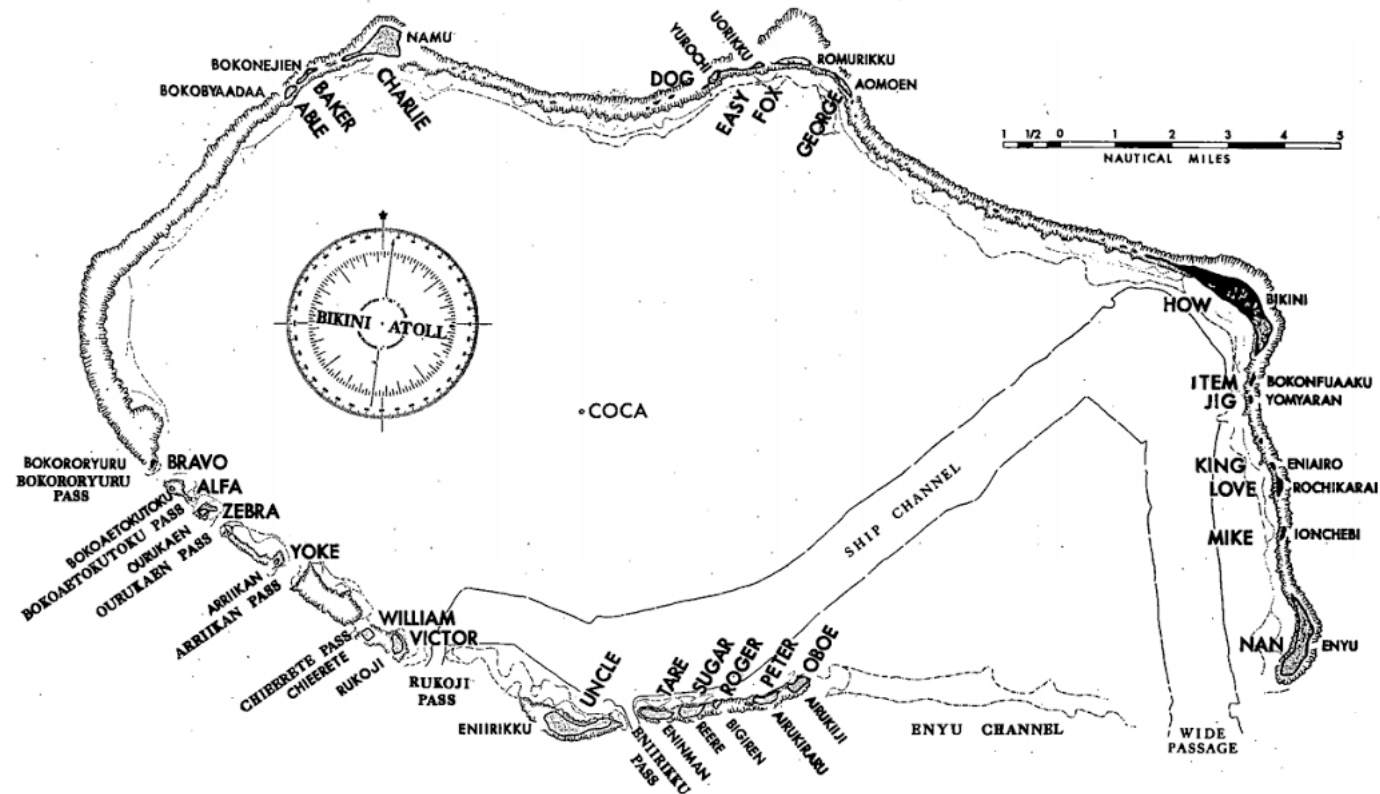


Figure 10
Shot 1, Close-in Gamma Fall-out Pattern (r/hr at 1 hr)

AFSWP 895: fallout dose rates at 1 hour after the 14.8 megatons surface burst Castle Bravo across Bikini Atoll, 1 March 1954. BEWARE OF THE MAP SCALE LABELLED "NAUTICAL MILES": this map and others in the series, reproduced in the 1956 weapon test report WT-915 and then in the fallout patterns compendium DASA-1251, exaggerates the size of Bikini Atoll considerably - by a factor of about 1.5 (the East-West length of Bikini Atoll is about 33 nautical miles on the graph above, as contrasted to a reality of just 22 nautical miles (see the accurate Holves and Narver below) - and needs correction (as we have pointed out in previous posts concerning DASA-1251 and WT-915). A good scan of an original printing of WT-915 is located [here](#).

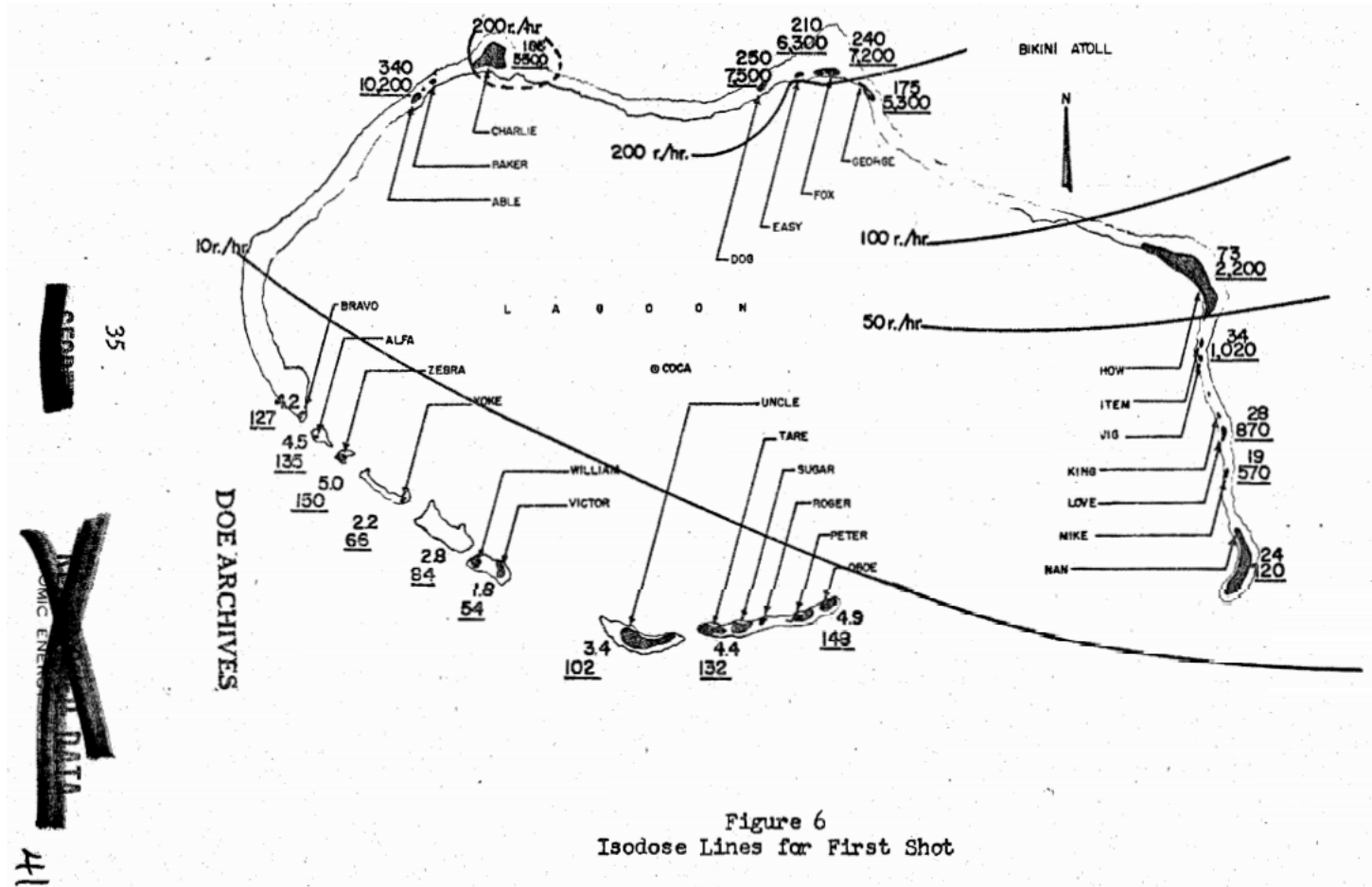


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DECLASSIFICATION TEAM,
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Los Angeles

Bikini Atoll map with accurate scale in Nautical Miles: the East-West length is about 22 nautical miles, as contrasted to the inaccurate USNRDL map scales which give a width of about 33 nautical miles (the East-West length is exaggerated by 1.5 squared, a factor of 2.25.) The inaccurate maps were proliferated in other fallout reports that "compiled" inaccurate data together without checking the scales (e.g., DASA reported in an earlier post, this had disastrous consequences for one computer prediction method, which was sold on the basis that it reliably reproduced the false Castle-3 shot pattern (the version with more than a doubling of areas).



AFSWP 895: fallout outdoor unshielded dose rates and doses after 14.8 megaton Castle Bravo across Bikini Atoll (ground zero is the reef to the immediate West of "Charlie" Island). Upper number is dose rate, lower is accumulated dose from fallout arrival time to infinity, outdoors and without any shielding such as buildings or other shelter.

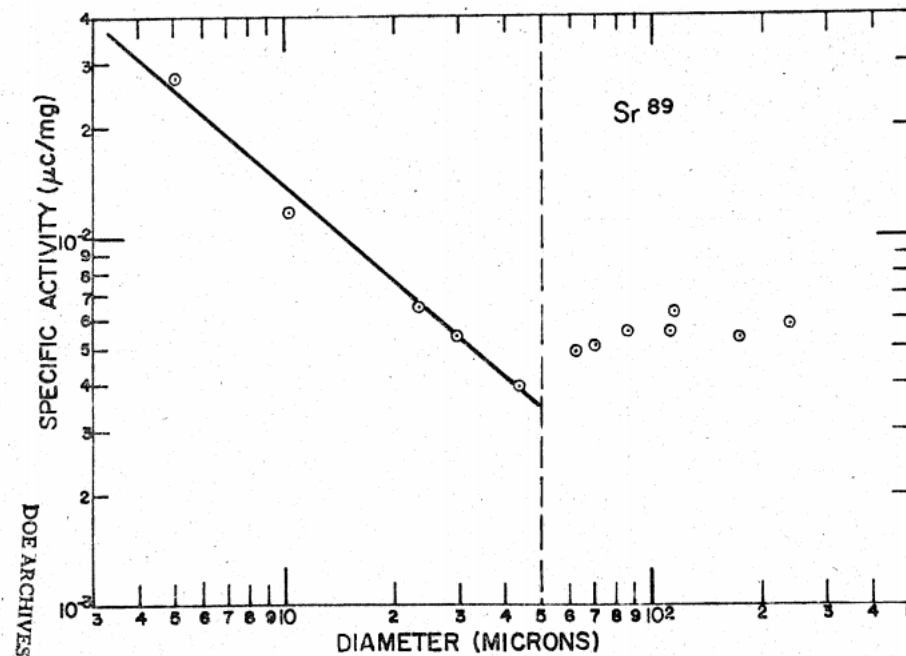


Figure 9

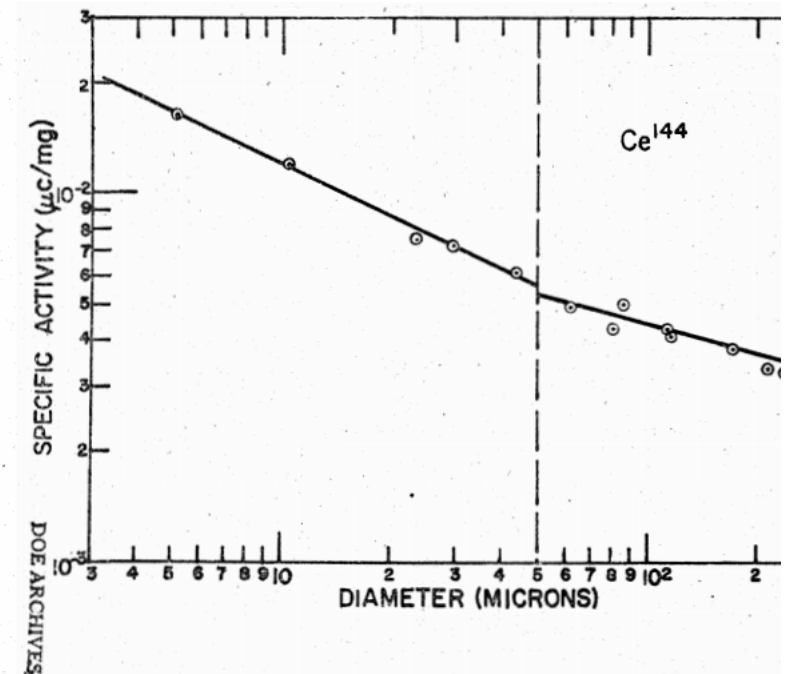


Figure 10

AFSWP 895 fractionation of Sr89 and Ce144 as function of fallout particle diameter in Operation Castle shot Bravo. Compare to the fractionation data from the 1956 Redwing tests, compi F. Miller in USNRDL466.

The report also contains new photos of the fireball and cloud from the 13.5 megaton Yankee shot of Operation Castle, taken from an RB-36, including the times of each photo (which is very useful, because it shows you the evolution of the fireball into the mushroom), at pages 91-110. On pages 110-121 there is an excellent summary of the fallout study results of the Nevada 1.2 kiloton surface burst and shallow subsurface (earth penetrator warhead simulation) bursts Sugar and Uncle, respectively, from 1951, including photos of the differences in the nature of the fallout, comparing this data to photos of fallout from the 1952 Ivy-Mike surface burst of 10.4 megatons at Eniwetok Atoll.

On pages 123-138 there is a nice paper by Dr Carl F. Miller, called "Physical and Chemical Nature of the Contaminant: Interpretation of Castle Observations", giving the fallout deposited mass per unit area for specific unit-time radiation dose rates, the averaged gamma ray energy, graphs of decay rates, and a detailed table of fallout solubility (ionic fraction of radioactivity when the fallout is mixed with water), comparing land and surface tests of Operation Castle.

(Compare this fallout solubility data to the later USNRDL reports WT-917 and WT-918. Note that 1958 Hardtack tests report WT-1625 on page 13 briefly interprets and summarises the solubility data from Castle in WT-917 and from Redwing in WT-1317 (the WT-1317 pdf file held on the Opennet database is corrupted and will not open, but we uploaded the full WT-1317 report to internet archive, linked here, before this occurred): the land surface bursts of Castle gave 5% fallout solubility, compared to 58-73% solubility for the water surface barge bursts, whereas the Redwing effective land bursts Zuni and Tewa gave 5-25% and 8-18% solubility, respectively, using rainwater and sea water. (These percentages don't apply to individual nuclides, since the soluble fraction mainly consists volatile decay chain nuclides like I, Sr, Cs, etc., which coat the outer surfaces of fallout particles; whereas the insoluble activity is mainly refractory nuclides that condense in the inside of molten particles, like Zr, Mo, U, Pu, etc. The overall percentage of solubility is therefore the average solubility of gamma emitters, which varies with time as the fallout mixture decays, and the relative percentage of activity coming from soluble nuclides rather than insoluble nuclides, evolves.)

On pages 139-153 there is an interesting paper by Dr Chris S. Cook, called "Radiological Nature of the Contaminant: Source Gamma Energy Spectra", giving data on the fallout gamma ray spectra determined using a sodium iodide scintillation crystal and a photomultiplier tube (the scintillation or flash brightness is proportional to the energy of the gamma ray, so with a pulse height discriminator circuit you can determine the spectrum). This is vital because the penetrating power of the gamma rays from fallout determines the protective factor of a fallout shelter, and the production of low energy gamma emitters in fallout, particularly neptunium-239 and uranium-237 (produced by the capture of a high energy neutron, above about 1 MeV, by U-238, followed by the ejection of two neutrons, i.e. a so-called n,2n reaction) reduces the danger in the fallout sheltering period of 1-14 days after a dirty bomb (with a uranium jacket on the fusion stage). Cook reports on page 139:

"Prior to 10 days following the detonation, a large fraction of the radiations are concentrated in the vicinity of 100 kev [0.1 Mev]".

This approximately 0.1 Mev radiation is the neutron activated U-237 and Np-239 (the time of peak percentage contribution of a nuclide to $T^{1.2}$ fallout decay is equal to the half life multiplied by $1.2/\ln 2$ which is a multiplication factor of 1.44). The best data available from Castle on this was from Union, shot 4, a water surface burst. However, excellent gamma spectrum data was obtained from land surface burst Zuni in 1956, reported in WT-1317 and related papers like USNRDL-TR-146, *Spectrometric Analysis of Gamma Radiation from Fallout from Operation Redwing*, which was discussed on page 19 of our *Nuclear Weapons - Collateral Damage Exaggerations* report. Miller gives an excellent compilation of neutron capture to fission ratios for nuclear tests up to 1960 in tables 4 and 6 of USNRDL466, although the numbers are deleted from that table in the declassified document, so you have to instead fill in the table spaces by calculating the capture atom/fission ratios using the ratios of the dose rates in gives in table 11; for example Jangle S gave $0.106/0.1799 = 0.59$ atom of U-239 per fission. Although Navajo and Flathead are deleted from that table, the capture atoms to fission ratios are reported for those shots in other reports, when you look carefully. One piece of data is given by the declassified WT-1317 e.g. the data in Table 3.14 on page 65 states that Flathead produced 0.41 atoms of Np-239 per fission, and more data is in the declassified NV0110837. The U239 and Np239 capture-to-fission ratios of Redwing thermonuclear weapons 3.8Mt 50% fission Cherokee, 3.53 Mt 15% fission Zuni, and 4.5 Mt 5% Navajo are reported respectively to be 0.500, 0.427 and 0.125 respectively, on page 12 of WT-1315, shown below:

fissions, respectively. Applying directly the capture-to-fission ratios 0.500, 0.427 and 0.125 as determined from actual samples obtained during Shots Cherokee, Zuni, and Navajo, the contribution of U^{239} to the total activity for the various events was then determined. The use of theoretical estimates (personal communication from C. F. Miller and N. E. Ballou, USNRDL) for the number of photons per disintegration for the fission products, 1.19, and U^{239} , 0.83, and the number of fissions per kiloton of fission yield, 1.45×10^{23} , together with the d/s/ 10^4 fissions values for the fission products and U^{239} then yielded the activity per event in photons/second at specified times. The data obtained are presented in Table 1.1.

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U239 production (capture to fission ratios) for Redwing:

WT-1315 (EX)

EXTRACTED VERSION

OPERATION REDWING

Project 2.61

Rocket Determination of Activity Distribution Within the Stabilized Cloud

There is earlier Upshot-Knothole nuclear test fallout data on average gamma ray energy in **WT-814**, based on the measurement of the attenuation of gamma rays by shields of varying thickness, rather than by gamma spectrometry (the electronics needed to discriminate energy intervals from sodium iodine crystal scintillation photomultiplier pulse heights were being developed in the early 1950s).

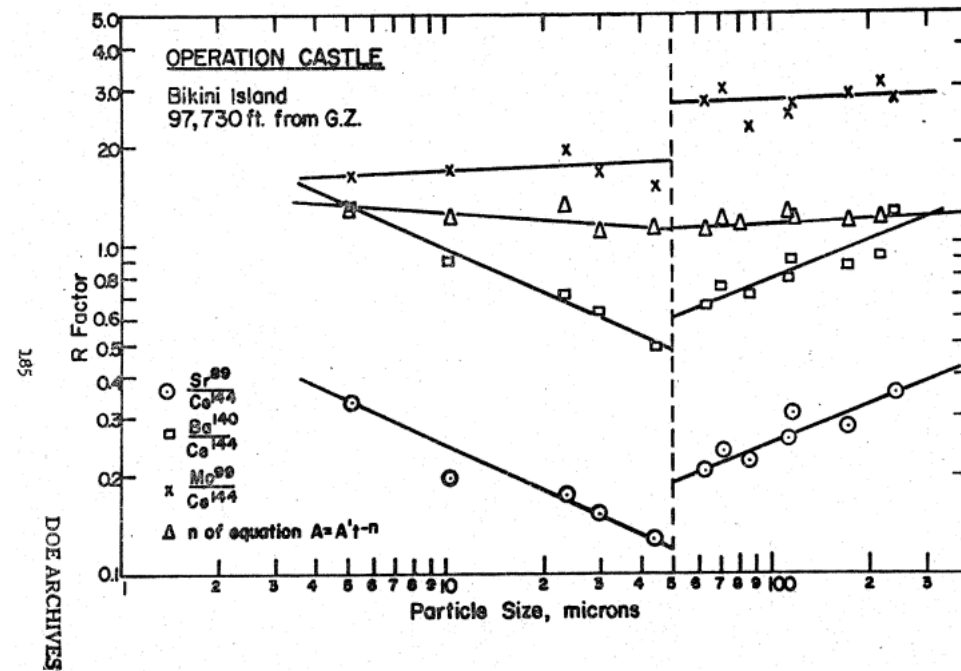
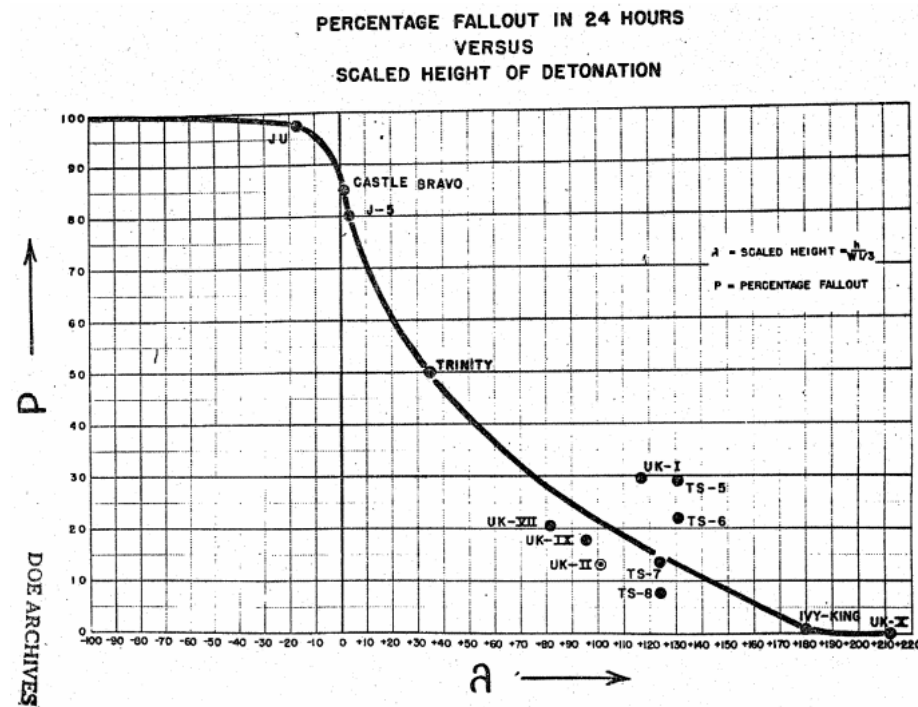


Figure 5

AFSWP 895: fractionation of Sr89 Ba140 and Mo99 as function of fallout particle diameter in Operation Castle. Note that Mo-99 is normally unfractionated since it is refractory (has a high melting point), whereas the gaseous precursors in the decay chains of strontium and barium make them effectively volatile, so they don't condense very effectively on fast-falling particles of early fallout. This graph gives data from samples collected at 18.5 statute miles from ground zero (97,730 feet). (There is a history of fractionation data collection at nuclear tests on pages 17-19 of Hardtack report [WT-1625](#), other versions of which - with slightly different data deleted in declassification - are located [here](#) and [here](#).)



AFSWP 895: measured percentage of fallout radioactivity deposited within 24 hours as a function of scaled nuclear burst altitude. The scaling procedure is to divide the actual height of burst into the cube-root of the weapon yield (i.e. 10 for 1000 kilotons).

You may be surprised to find that, relative to the ground, the outside of the mushroom is standing still or even descending slightly (Figure 3).

SKETCH OF TORUS OF A 30 KI WEAPON ABOUT
1 MIN AFTER BURST

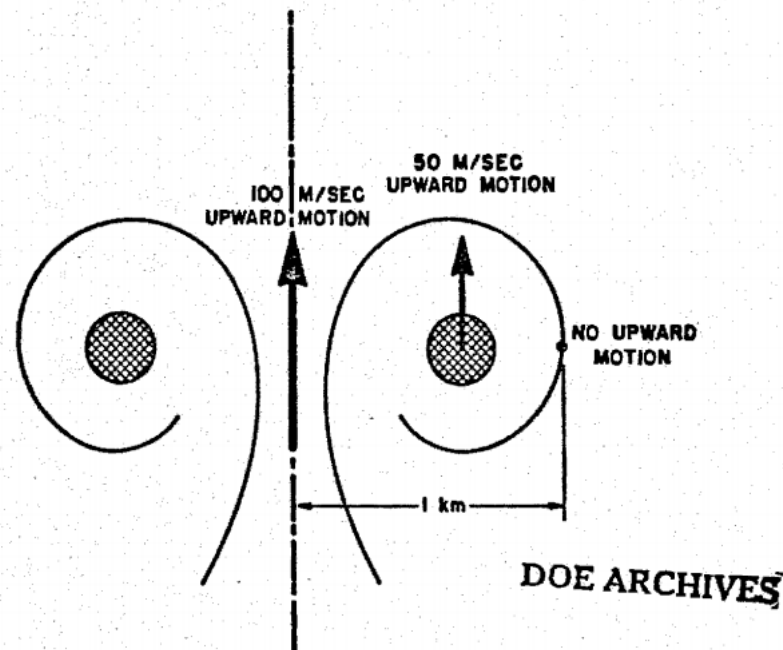
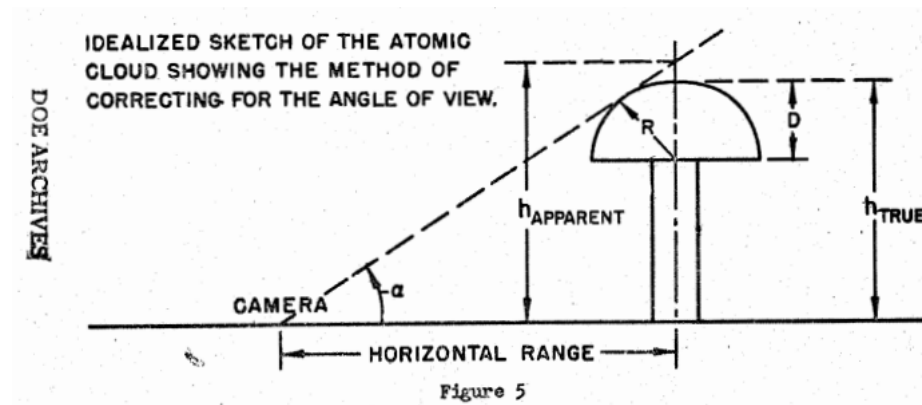


Figure 3

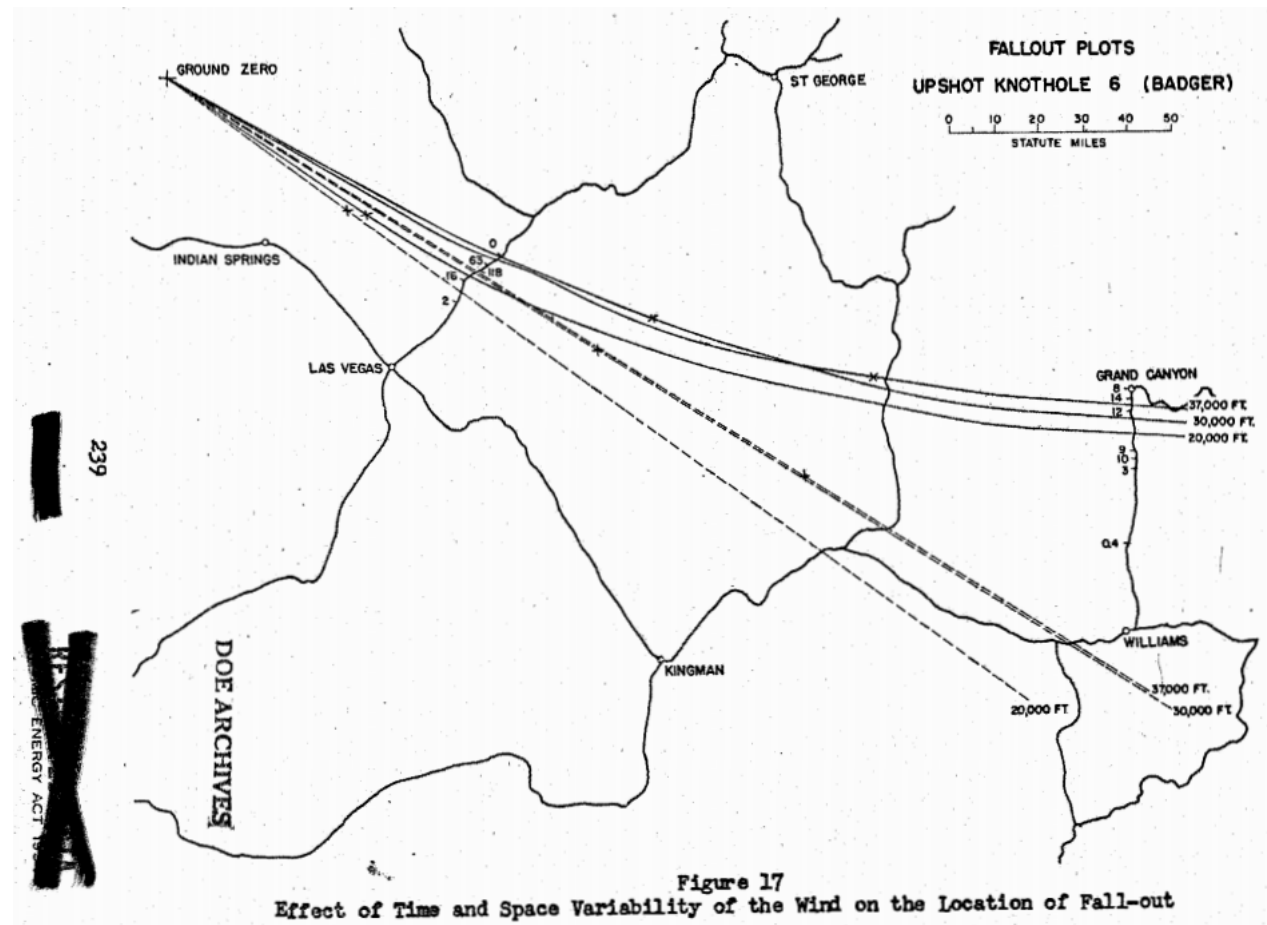
195

~~SECRET~~

AFSWP 895: speed of rotation of radioactive torus or toroidal circulation inside rising fireball from a 30 kiloton nuclear weapon at 1 minute, taken from Dr Kellogg's presentation (he gave an unclassified version, omitting this data on the measured speeds in the vortex, to the unclassified May 1957 congressional hearings on *The Nature of Radioactive Fallout and Its Effects on Man*).



AFSWP 895: Dr Kellogg's illustration showing why the cloud top heights were inaccurately measured and reported in early H-bomb tests like Mike, whose height was originally wrongly reported as 25 miles not 20 miles, due to horizontal projections from the edge being confused for the top of the cloud.



AFSWP 895: fallout from 1953 Nevada nuclear test Badger of Operation Upshot Knoch showing paths of fallout at different altitudes in the mushroom cloud: because the winds have different speeds and directions at different altitudes, there the cloud separates accordingly and fallout is distributed over a larger area than would be the case without this wind shear. This diffusion of fallout spreads the same total amount of radioactivity over a greater area, reducing doses and dose rates to lower levels than simplistic predictions (the classic cigar shaped fallout pattern) indicate.

MUSHROOM

| SIZE GROUP IN MICRONS | 20 | 40 | 68 | 85 | 100 | 110 | 125 | 150 | 180 | 210 | 230 | 290 | 500 |
|--------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| PERCENTAGE OF TOTAL RADIOACTIVITY | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 10% | 2% | 2% | 2% | 2% | 2% |

TOTAL 90 %

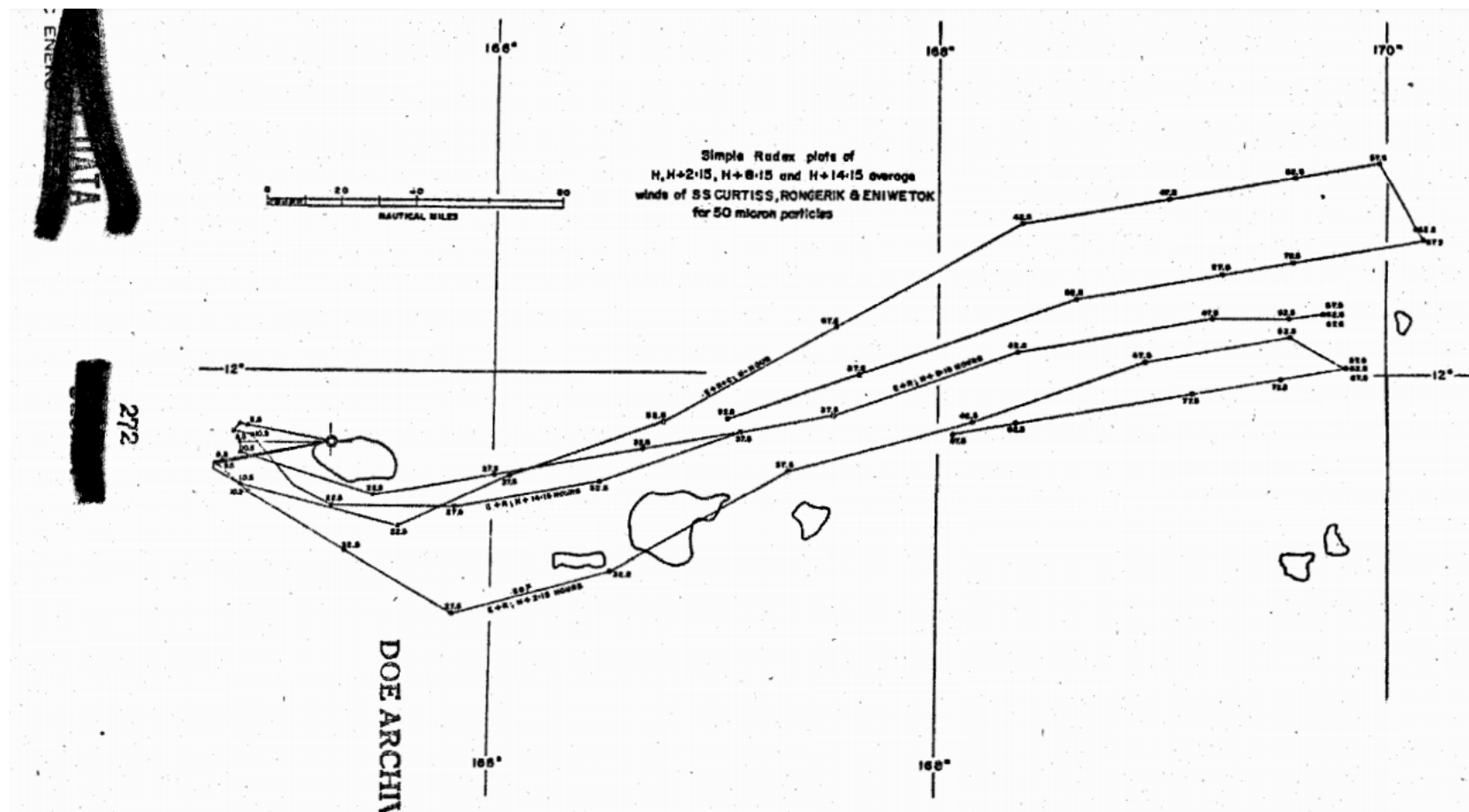
STEM

| SIZE GROUP IN MICRONS | 180 | 220 | 290 | 640 |
|--------------------------------------|-----|-----|-----|-----|
| PERCENTAGE OF TOTAL RADIOACTIVITY | 2½% | 2½% | 2½% | 2½% |

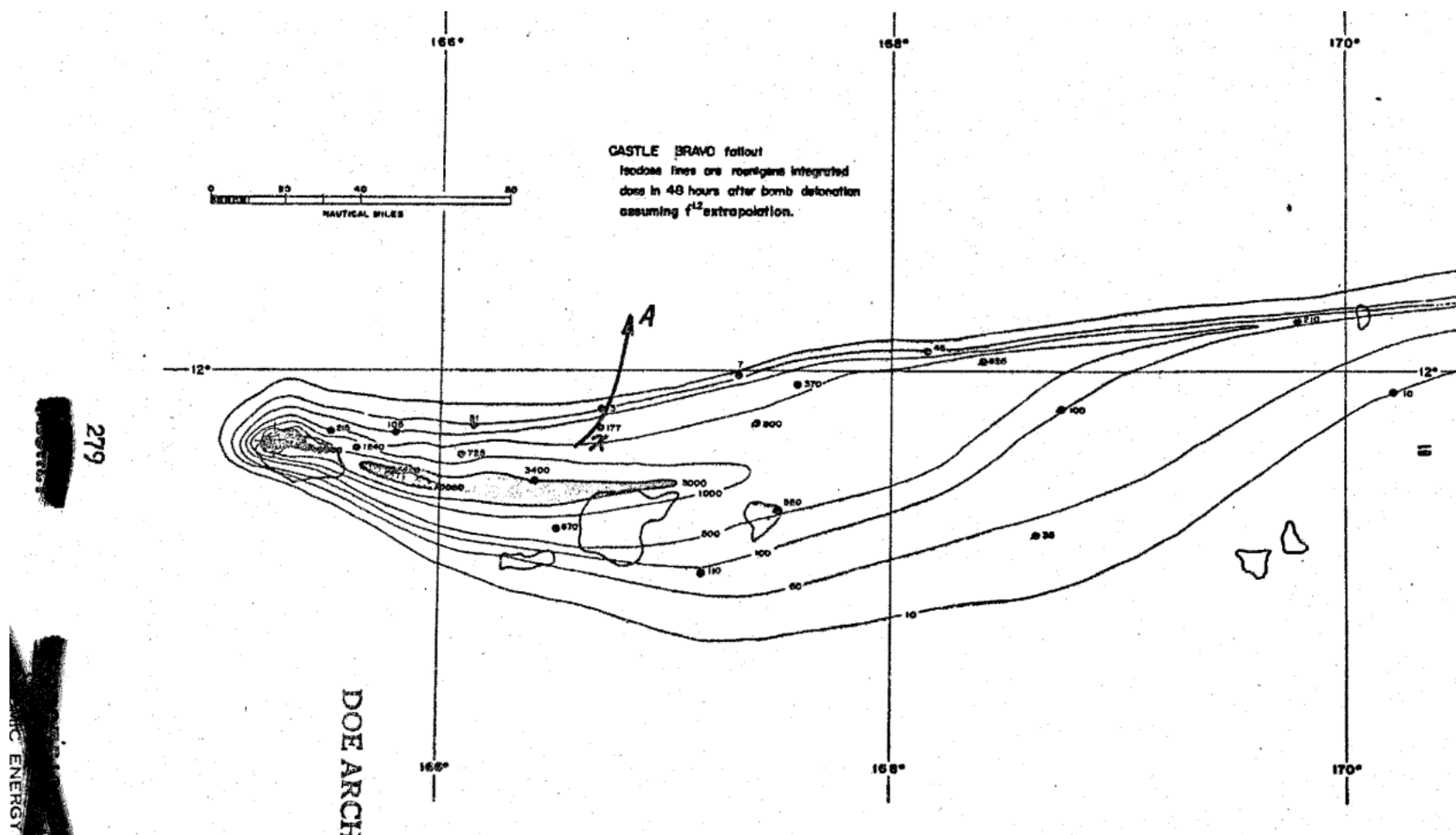
TOTAL 10 %

Figure 2

AFSWP 895: **fallout distribution in the mushroom head and in the stem of the cloud as used in the US Army Signal Corps fallout prediction method.** Note that 90% is assumed to be in the mushroom head, and that 10% is in the stem (at lower altitudes), but the average size of the particles in the stem are larger than those in the mushroom head. This type of analysis, based on trying to reconcile theory with observed fallout data, is the source of the statement about the assumed distribution in Glasstone's *Effects of Nuclear Weapons*.



AFSWP 895: one effort (by Lt Col Lulejian) to reconstruct the fallout distribution across Rongelap Atoll in the 15 megatons Castle Bravo test on 1 March 1954 based on wind data analysis. This is controversial and possibly very unreliable due to the inclusion of Eniwetok Atoll data (200 miles to the West of Bikini, i.e. 200 miles *upwind!*). However, it shows that efforts were being made to try to determine the whole fallout pattern for the January 1955 Fall-Out Symposium.



AFSWP 895: Lulejian's effort to model fallout distribution doses to 48 hours across Rongelap Atoll in the 15 megatons Castle Bravo test on 1 March 1954 based on wind data analysis, combined with radiation measurements made on atoll islands. The only Castle test where the entire fallout pattern was measured was 13.5 megaton Yankee, using ships and aircraft to survey the ocean and then to correct the measurements for the large protective factor of the water (when the fallout hits the water, most of the activity, whether soluble or in micron sized insoluble metallic particles within the relatively large calcium hydroxide flakes, ends up dispersed within the 100 metre thick surface water above the thermocline, attenuating the surface dose rate to something on the order of 500-1000 times less than the dose rate you get when the same amount of fallout is deposited on a land surface). 1956 Redwing nuclear tests showed that water surface bursts like Yankee in the 80% humidity air of Bikini atoll produce similar local fallout distributions to land surface bursts, and Yankee probably gave a very similar fallout distribution to Bravo's shot time wind fallout pattern. This is similar to RAND Corporation's analysis of the Bravo fallout. AFSWP 895 also gives Schuert's elaborate and misleading Bravo fallout reconstruction (later reprinted in USNRDL report WT-915), which puts too much activity in the highest dose rate contours, violating the area versus dose rate plots given by four land and water shots in Redwing, when scaled to 1 fission megaton (see WT-1316, Figure 2.45). (Also, see Kellogg's testimony on page 105 of the 1957 congressional hearing *Nature of Radioactive Fallout and Its Effects on Man*, where Kellogg notes that the percentages of local fallout for land and water surface bursts in Redwing were actually very similar, and an earlier analysis to the contrary ignored Na-24 and use the wrong conversion factor between dose rate and activity; unfortunately the corrected data was ignored and the earlier mistaken analysis is quoted by Glasstone and Dolan 1977, and is also quoted by Chuck Hansen in his 1988 book *US Nuclear Weapons*. To summarise, the initial analysis of the Flathead and Navajo water surface burst tests of Redwing indicated only about 30% of activity down in 24 hours, but the reanalysis by B. L. Tucker of RAND Corp, allowing for Na-24 and the correct dose rate to fissions conversion factor, gave 65-70%, which is within the error limits on land burst data. The actual percentage refers to effective gamma dose rates not specific nuclides; refractory nuclides are concentrated on large particles which arrive in local fallout, while

volatile nuclides that condense at late times on the remaining very small particles in the cloud, mostly come down later on more distant fallout.) For Yankee's dose rate versus area data, see [table here](#). (This was discussed in previous posts on this blog.) There is a detailed discussion of the time and space wind data available for the Marshall Islands around the time of the Bravo shot, [here](#).

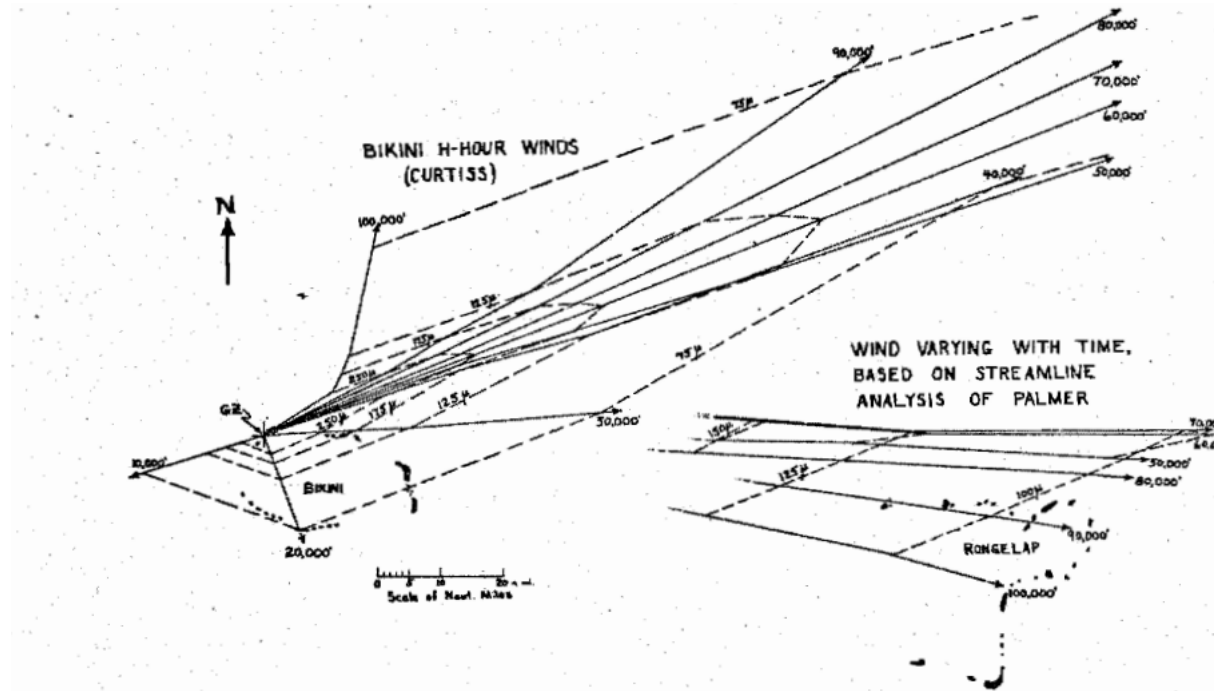
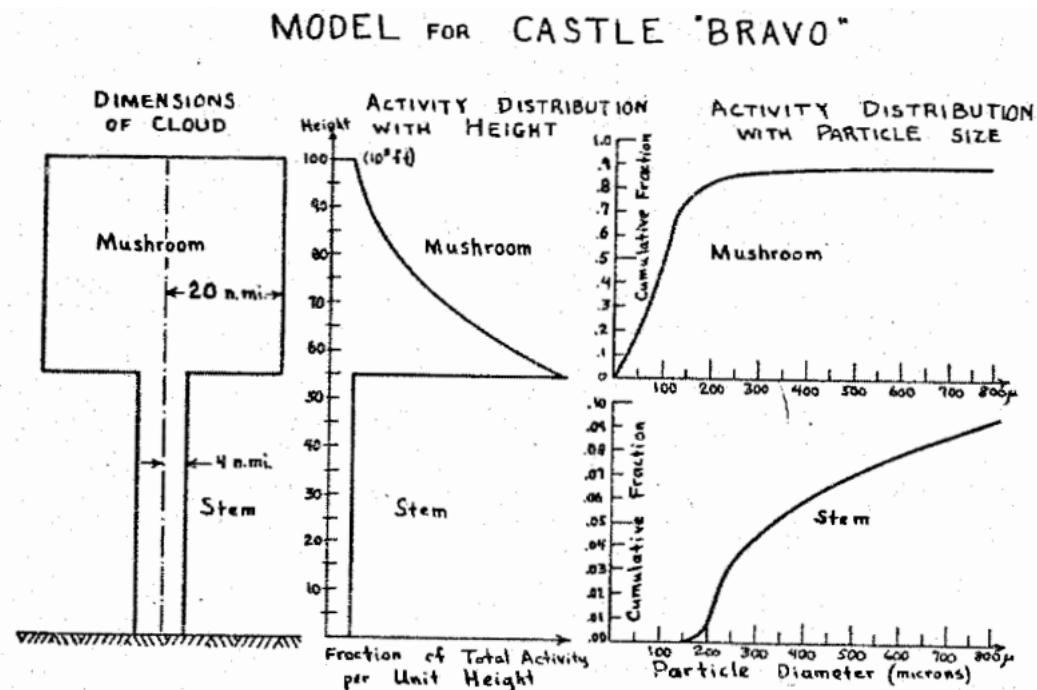


Figure 6

A schematic of the RAND Model showing the Spatial Dimensions of the Cloud, the Relative Distribution of Activity with Height, and the Distribution of Activity with Particle Size

AFSWP 895: fallout winds analysis by RAND Corporation for the 15 megatons Castle Bravo test on 1 March 1954 (the USS Curtiss was used as a weather observation ship which sent up balloons, which were tracked by radar to determine the wind pattern as function of altitude over the test site). (Note that the Figure 6 caption is for Fig 7, shown below, and vice-versa!)



DOE ARCHIVES

Figure 7

A Plot of the Position on the Ground of Particles of Size r , from Heights h for the CASTLE-Bravo Event. The Main Plot is Following the H Hour Winds. The added Sector Shows Time Variant Winds according to the Oahu Research Center Report.

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AFSWP 895 fallout in mushroom cloud of the 15 megatons Castle Bravo test on 1 March 1954 as determined by a RAND Corporation analysis. (Note that the Figure 7 caption is for Fig 6, shown above, and vice-versa!)

SUMMATION OF THE RADIATION CONTRIBUTION FROM PARTICLES IN THE STEM AND MUSHROOM TO A PARTICULAR GRID POINT

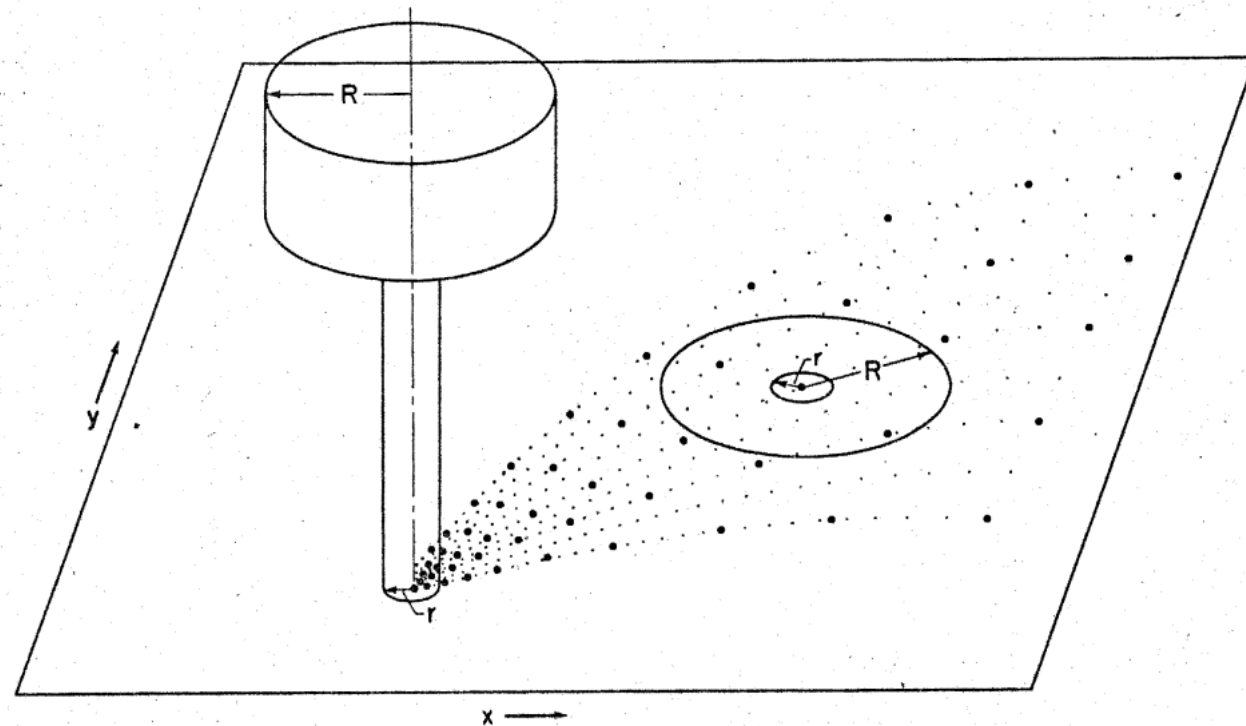
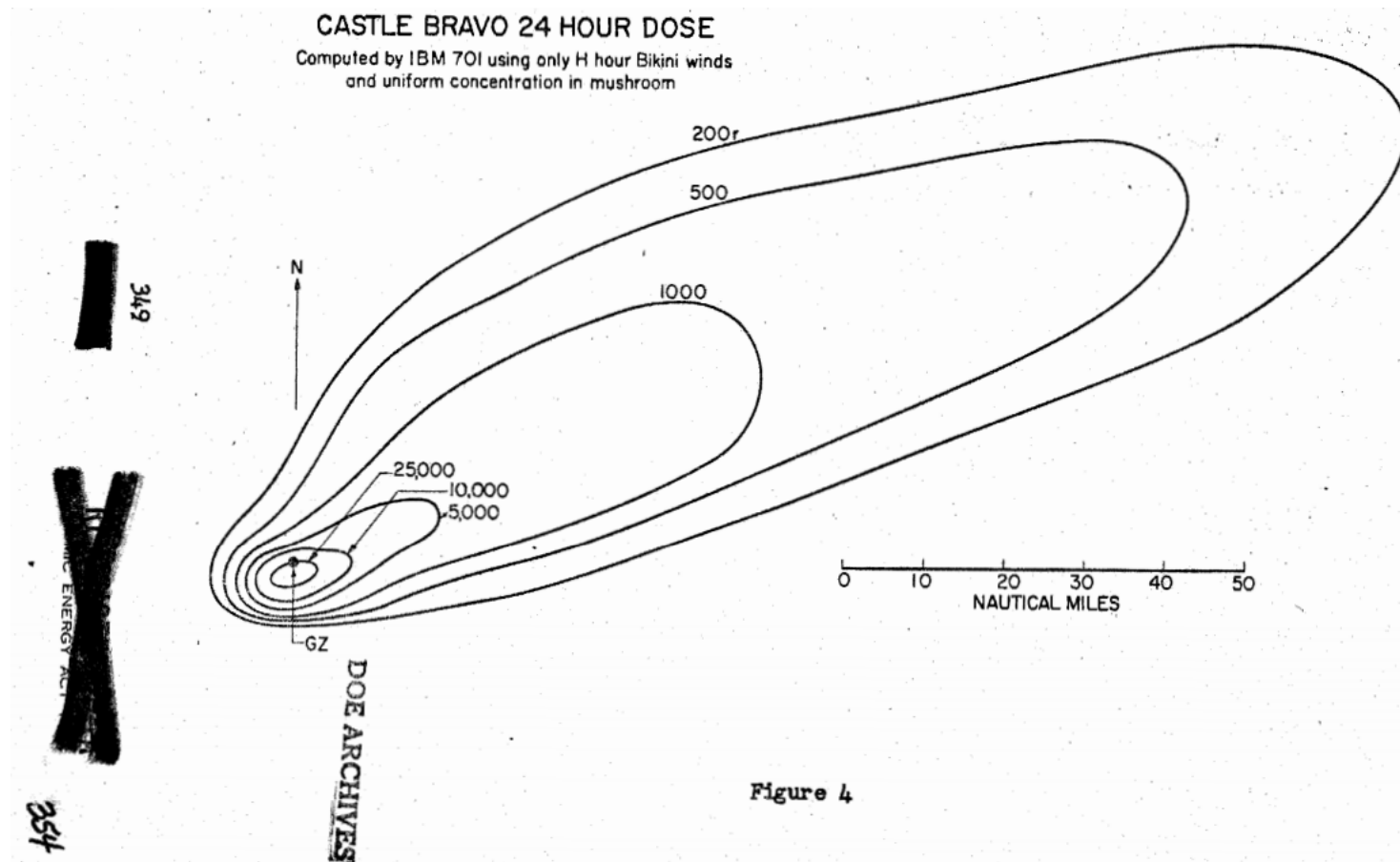


Figure 3

AFSWP 895: **IBM701 computer summation fallout prediction method for 15 megatons Castle Bravo test on 1 March 1954 as determined by a RAND Corporation analysis.** This was developed by Stanley Greenfield of RAND Corporation, who states on page 348: "The first problem that was tried on the machine [an IBM 701 computer] was the Castle-Bravo shot", using the shot time winds measured from the USS Curtiss, a ship near Bikini Atoll. The predicted Bravo fallout pattern is shown below:



AFSWP 895: **IBM701 computer prediction of fallout using shot time winds for 15 megatons Castle Bravo test on 1 March 1954 as determined by a RAND Corporation analysis.** Notice that the fallout is predicted to essentially miss Rongelap Atoll (which is located from roughly 100 nautical miles East to 115 miles ESE, from ground zero). Hence, there *really* was a wind shift that contaminated the islanders on the south of Rongelap (and nearby Americans on Rongerik Atoll, just to the east of Rongelap). Even if the IBM 701 had been available to predict the fallout from Bravo on 1 March 1954, it would not have predicted the danger unless supplemented with a modern weather prediction including the *changing wind pattern in the 6-7 hours following the detonation!*

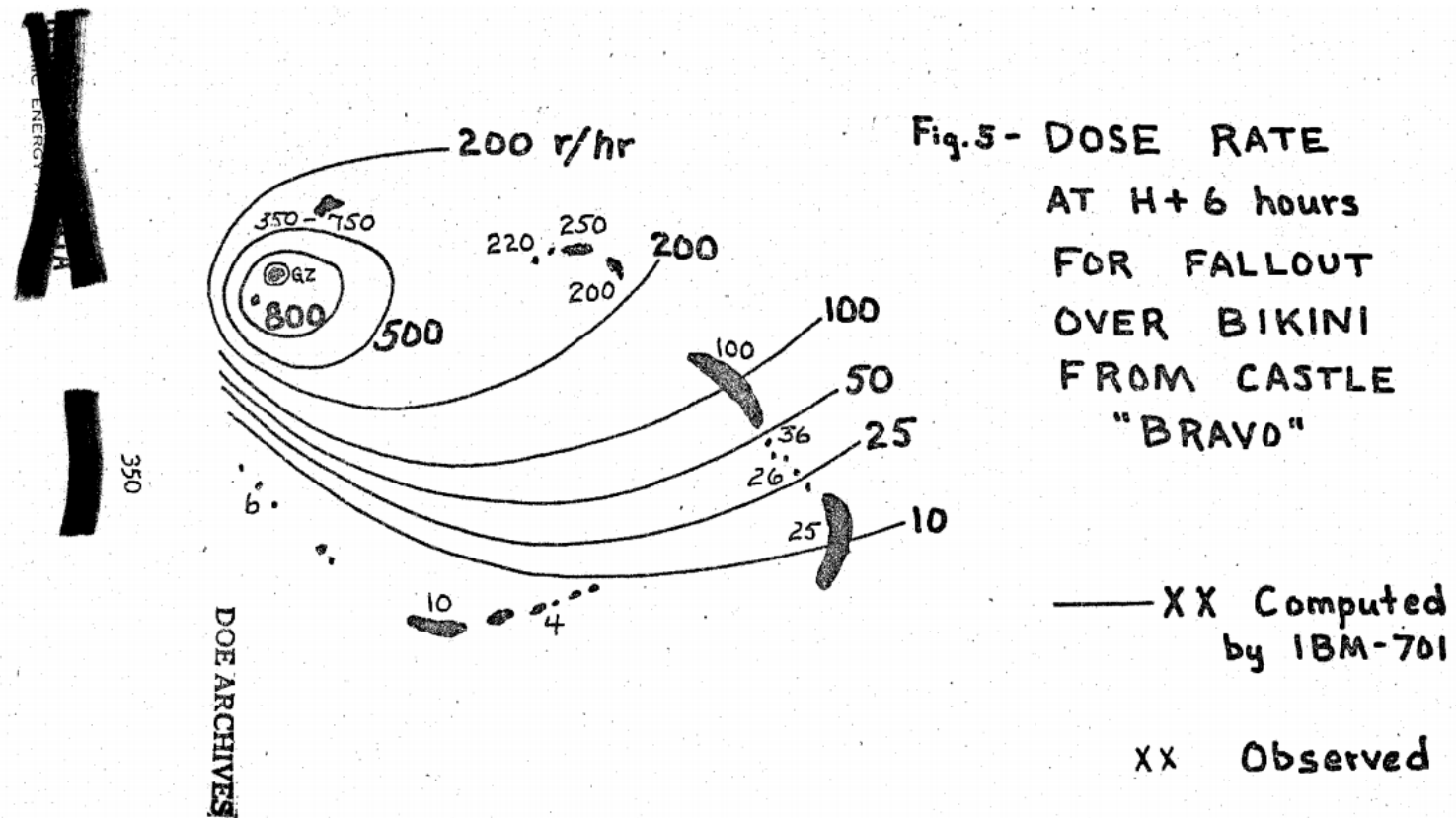
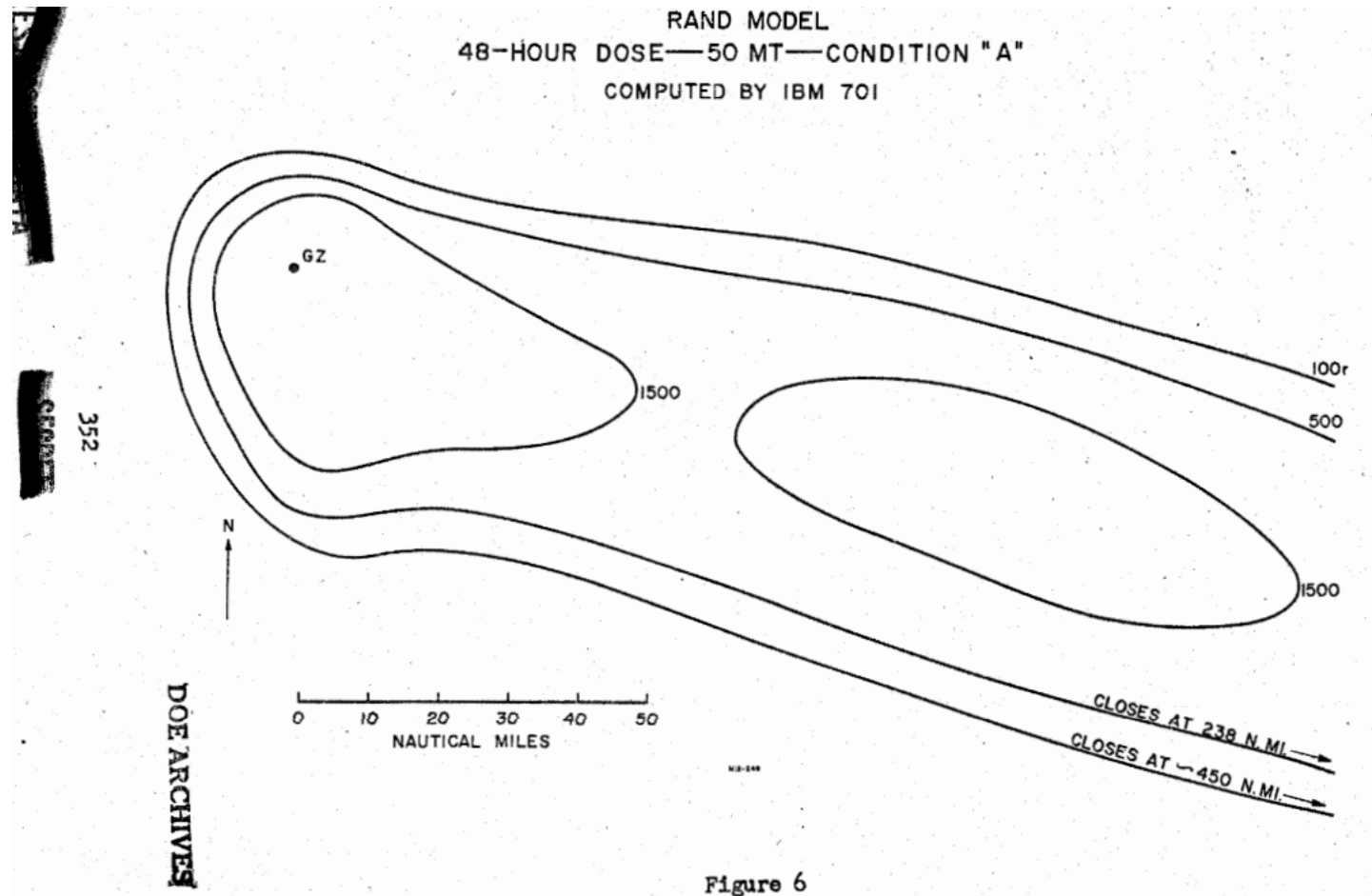
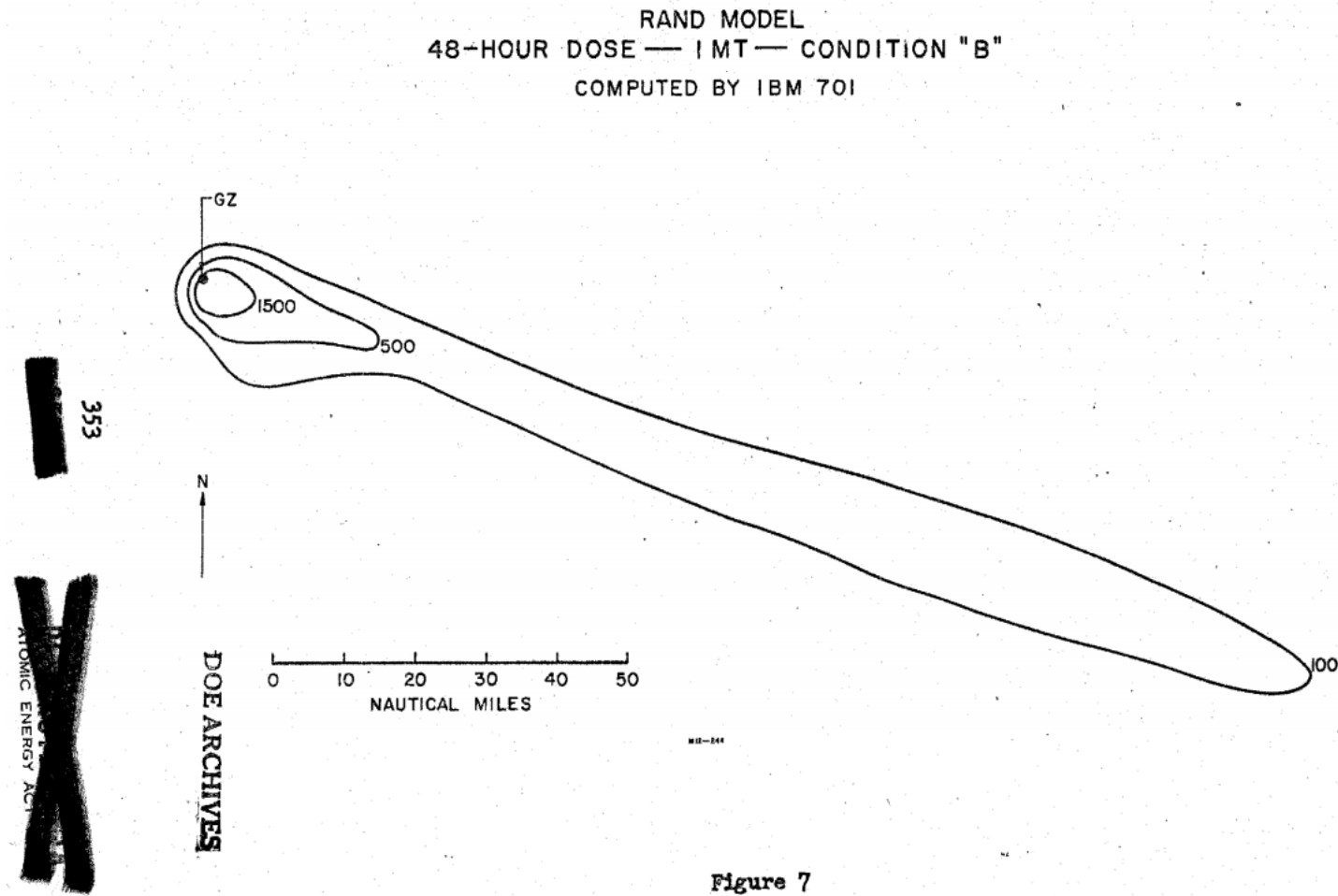


Figure 5

AFSWP 895: IBM701 computer prediction of fallout over Bikini Atoll using shot time winds for 15 megatons Castle Bravo test on 1 March 1954 as determined by a RAND Corporation analysis, comparison of measurements to predictions!



AFSWP 895: **IBM701 computer prediction of fallout doses from a 50 megaton nuclear test as determined by a RAND Corporation analysis.** Note that the 1500 R dose would be reduced to a survivable 37.5 R by a protection factor of 40, the minimal specification for fallout shelters.



AFSWP 895 IBM701 computer prediction of fallout doses from a 1 megaton nuclear test as determined by a RAND Corporation analysis. This is using the same model which successfully explained Bravo, and shows that with simple fallout shelters, fallout can be survived.

TABLE IV
Areas of Contaminated Ground Enclosed by the Roentgen Levels Noted for the Six AFSWP Wind Conditions
(Areas Tabulated in 10³ sq. mi.)

| R is 1 hr-R/hr Dose Rate | | | | | | D is two-day Cumulative Dose | | | | | | |
|--|-----------------------|---|------|--|------|--|------|---------------------------------------|------|--|------|---------------------------|
| Fission, Product Roentgen Level | Burst Energy MT | Dodge City, Ia. 28 December Condition A | | Washington, D. C. 28 September Condition B | | Carribou, Maine 18 March Condition C | | Boise, Idaho 14 May Condition D | | Washington, D. C. 9 February Condition E | | Washin 8. Cond R |
| | | R | D | R | D | R | D | R | D | R | D | R |
| 100 | 1 | 0.7 | 0.9 | 1.0 | 1.3 | 0.8 | 1.8 | 0.7 | 0.8 | 0.5 | 1.9 | 0.8 |
| | 15 | 10.7 | 10.2 | 12.6 | 11.4 | 13.1 | 13.0 | 10.0 | 5.6 | 11.0 | 15.5 | 8.7 |
| | 50 | 32.3 | 29.0 | 42.4 | 28.0 | 46.0 | 36.0 | 27.6 | 14.4 | 40.0 | 43.0 | 27.3 |
| 500 | 1 | 0.2 | 0.3 | 0.0 | 0.4 | 0.0 | 0.3 | 0.2 | 0.4 | 0.0 | 0.0 | 0.2 |
| | 15 | 2.6 | 3.7 | 2.8 | 3.7 | 2.0 | 4.3 | 2.4 | 3.2 | 0.3 | 4.0 | 2.7 |
| | 50 | 9.3 | 12.8 | 10.5 | 12.1 | 9.6 | 14.7 | 10.3 | 9.6 | 5.2 | 15.0 | 9.0 |
| 1500 | 1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| | 15 | 0.0 | 1.4 | 0.0 | 1.6 | 0.0 | 0.0 | 1.1 | 1.6 | 0.0 | 0.0 | 0.6 |
| | 50 | 1.3 | 6.2 | 1.8 | 6.2 | 1.0 | 6.0 | 5.0 | 6.0 | 0.0 | 3.6 | 4.0 |

Condition A - Winter. - Wintertime situation of an abrupt approximately 90° sheer at a height of approximately 40,000 ft. 30 to 50 knot winds.

Condition B - Fall. - Gradual sheer of approximately 90 per cent. 20 to 30 knot winds.

Condition C - Winter. - Winds at all levels from approximately the same direction. 30 to 60 knot winds.

Condition D - Spring. - Relatively low wind speeds at all levels. 0 to 15 knot winds.

Condition E - Winter. - Relatively high wind speeds above 10,000 ft. 50 to 130 knot winds.

Condition F - Summer. - Gradual sheer of approximately 180°. 10 to 30 knot winds. *assumes (and includes) a 0 (i.e., for an infinite smooth p

AFSWP 895: example of tabulated outdoor fallout areas for dose rates and accumulated doses from yields of 1 to 50 megatons. Many different fallout models were compared in AFSWP-895. the activity distribution in the cloud and as a function of particle size, which affected how much activity came under the influence of winds blowing in different directions at different altitud were measured in detail in 1956 Redwing tests (using rockets with radiation meters and radio telemetry of data, see weapon test report WT-1315) and detailed particle size distributions (see 1 are now resolved and fallout is very predictable with modern data from the 1956 Redwing series as well as modern weather prediction computer programs that include jet stream trajectory forecasts. (Naturally, the ground deposited spectrum of fallo the particle sizes that have a falling speed which results in their landing at that location, so this data needs to be backtracked to the cloud from a large number of representative locations to see what the overall distribution of particles is initially in the Cloud samples are also biased in the same kind of way, because the largest fallout particles fall out before a sampling aircraft can safely get near the cloud. Dr Edward C. Freiling's 1970 book *Radionuclides in the environment*, contains many papers for Pacific shots in Castle, Redwing, and various 1962 Nevada surface bursts, such as Johnie Boy and Small Boy. There is plenty of data, and shots on the differing soil particle size distributions in Nevada and the Pacific all tend to give a similar par power of particle radius, above 1 micron.)

UPDATES: 30 January 2018

Martha DeMarre of the Nuclear Testing Archive has also kindly supplied a [PDF of the 1957 RAND Fallout Symposium \(which we've uploaded to internet archive here\)](#), which contains an application of Anderson's dynamic fallout model to the 1.2 kiloton Sugar nuclear test in Nevada, 1951, to explain particle size distributions by tracking particles from the crater to their maximum height and then fall (rather than the usual false assumption that

fallout occurs from a stabilised cloud). This is **listed on the DOE Opennet site but no PDF was previously available**. It also contains Schuert's demonstration that the time and space variation of the downwind wind structure correctly predicts the 3.53 megaton Zuni fallout pattern of Redwing (which is the only one of his four shot analyses which cannot be adequately analysed using merely shot time winds near ground zero; the other shots more easily predicted being **Tewa**, **Flathead** and **Navajo**), and summaries of the fractionation data for I-131 and several other nuclides in the 5.01 megaton harbour type surface burst **Tewa** at Bikini Atoll in 1956 in table 2 of appendix B:

APPENDIX B

OPERATION REDWING RESULTS

Table 1 - SIZE AND ACTIVITY DISTRIBUTION AS A FUNCTION OF PARTICLE SIZE FOR SURFACE LAND SHOTS AT OPERATION REDWING

| | Tewa Shot Bravo Island Collector | |
|----------|-------------------------------------|---------------------|
| | % of Total Weight | % of Total Activity |
| < 44μ | 0.4 | - |
| 44-74μ | 1.0 | 1.2 |
| 74-105μ | 0.8 | 0.9 |
| 105-149μ | 1.0 | 1.1 |
| 149-210μ | 2.5 | 2.2 |
| 210-420μ | 43.7 | 65.5 |
| 420-840μ | 45.7 | 26.8 |
| > 840μ | 4.8 | 2.1 |

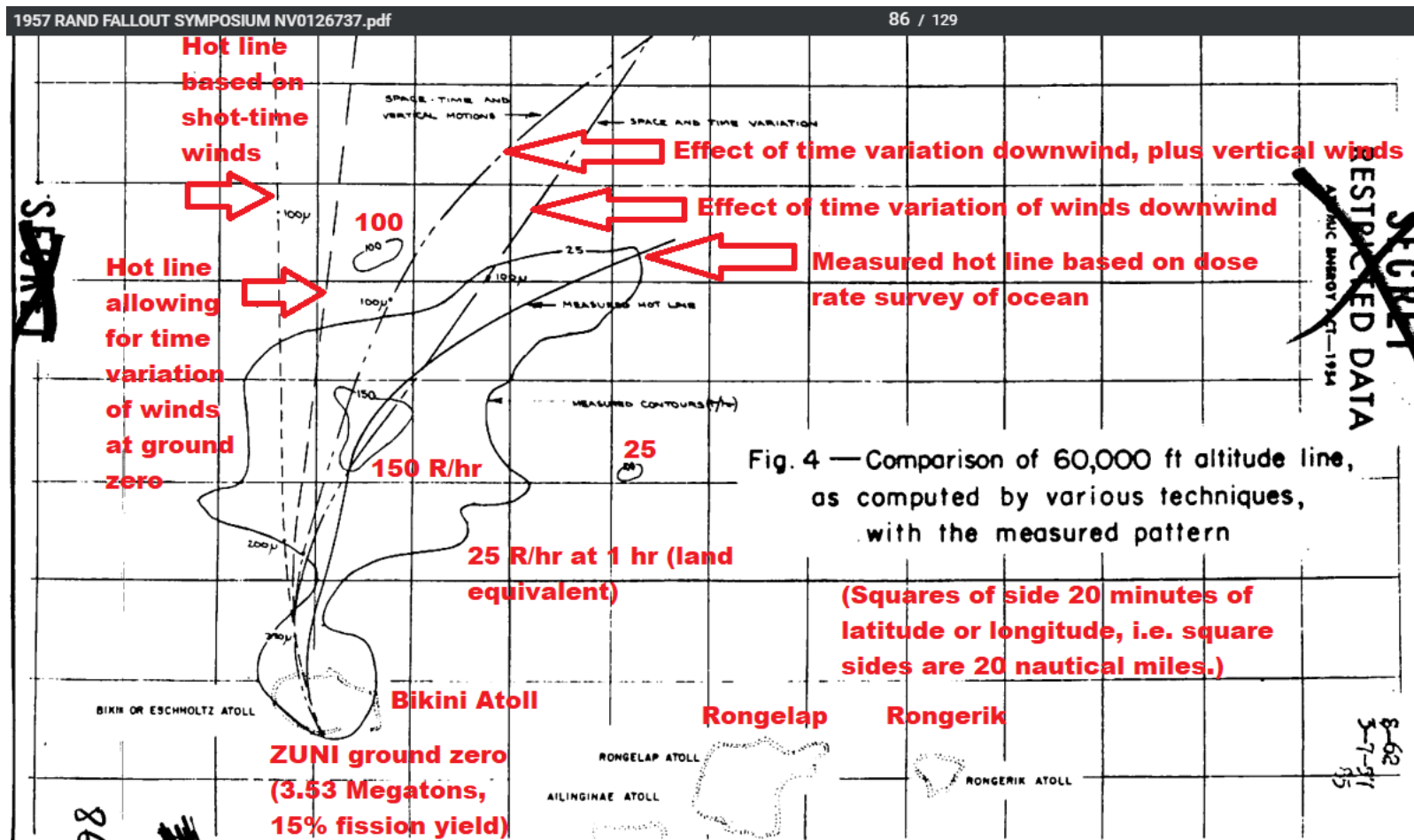
Table 2 - RADIOCHEMICAL FRACTIONATION IN **Tewa** FALLOUT BETWEEN SPHERICAL AND ANGULAR PARTICLES

| Sample | R Values | | |
|----------------------|--------------------------------------|--------------------------------------|---------------------------------------|
| | $\frac{Sr^{89}}{Mo^{99}} \pm \sigma$ | $\frac{I^{131}}{Mo^{99}} \pm \sigma$ | $\frac{Ba^{140}}{Mo^{99}} \pm \sigma$ |
| Bravo Island Fallout | | | |
| Angular Particles | | | |
| 149-210μ | 0.137 \pm 12 % | 0.206 \pm 16 % | 0.406 \pm 12 % |
| 210-420μ | 0.0995 \pm 23 % | 0.323 \pm 25 % | 0.308 \pm 12 % |
| 420-840μ | 0.138 \pm 11 % | 0.446 \pm 19 % | 0.526 \pm 12 % |
| > 840μ | 0.0614 \pm 6.0 % | 0.167 \pm 15 % | 0.252 \pm 12 % |
| Spherical Particles | | | |
| 149-210μ | 0.0474 \pm 25 % | 0.0648 \pm 20 % | 0.131 \pm 12 % |
| 210-420μ | 0.0179 \pm 7.1 % | 0.0275 \pm 12 % | 0.0704 \pm 12 % |
| 420-840μ | 0.00640 \pm 18 % | 0.0112 \pm 11 % | 0.0248 \pm 12 % |
| > 840μ | 0.00369 \pm 31 % | 0.00885 \pm 28 % | 0.0140 \pm 12 % |

* The symbol, σ , represents the percent standard deviation

1957 RAND Fallout Symposium: 5.01 megaton **Tewa** fallout radionuclide fractionation (depletion factor for volatile precursor decay chains) versus particle size and type for close-in samples from Bikini Atoll. Note that I-131 is less severely fractionated than Sr-89, that the larger the fallout particles, the greater the depletion, and that spherical shaped particles have more severe fractionation than angular particles. **This is also seen in Tables 2 and 4 of USNRDL-TR-386 (AD232901) for the "Whim" sample** of Zuni fallout (the test is identified in WT-1317): melted (spherical or "altered") particles had only 0.018 of the Sr-89 of unfractionated fission products, whereas unaltered (angular) particles has 0.65 and so were almost unfractionated, so they must have picked up the activity which was left behind after the melted particles were formed. (For general data on Tewa, see the preliminary report of the test linked [here](#).) Note that the cloud sample data on Redwing fractionation is summarised in **WT-1325**, table 3.11 on page 47: fractionation was severest for lower altitudes in the cloud, where larger particles resided. For example, only 0.51 of the expected unfractionated abundance of Sr-90 was observed at 41,000 feet altitude in the Zuni cloud, compared to a factor of 2 (enrichment) at 55,000 feet in the same cloud. In **table 3.2 on page 42 of the same report**, for the 1958 Hardtack tests, it is shown that 1.31 megaton land surface burst Koa deposited 98% of its refractory Mo-99 within 24 hours, contrasted to only 64% of its volatile decay chain for Cs-137. In the 9 megaton Oak surface burst test (effectively a land surface burst since the 15 feet of water above the reef at ground zero was trivial compared to the fireball radius), the corresponding figures were 89% of Mo-99 and 49% of Cs-137 deposited in 24 hours.

Volatile nuclides are concentrated on small, slow-falling particles located high in the cloud.



1957 RAND Fallout Symposium: Edward A. Schuert's predictions of the fallout hotlines for the 3.53 megaton **Zuni** test using different assumptions (shot time winds near ground zero, the space and time variation of the winds in the downwind areas through which fallout actually descends, and even vertical motions), compared to the ocean measured fallout intensities extrapolated to a land surface at 1 hour after detonation.

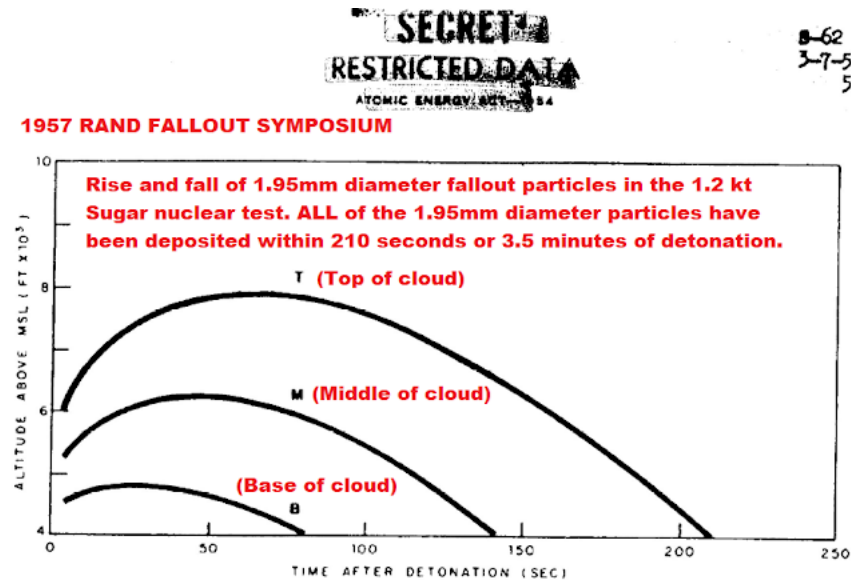


Fig. 1 — Time-altitude curves for 1950 micron diameter particle

1957 RAND Fallout Symposium: Anderson's U.S. Naval Radiological Defense Laboratory dynamic fallout model analysis of the largest fallout particles (almost 2 mm in diameter) motions in the 1.2 kiloton Sugar test (Nevada, 1951). Note that contrary to simplistic fallout models which assume that all fallout begins from the stabilised cloud 5 minutes or so after burst, no 1.95 mm diameter fallout particles remained airborne after 3.5 minutes in this test. Anderson's model starts with dust being raised by the afterwinds from the crater, rising while that updraft force exceeds gravitation, then falling. In this way, particles of different sizes rise to different peak altitudes in the cloud (the heaviest remaining mostly in the cloud stem, and the smallest rising higher). This model thus provides the airborne distribution of particle sizes versus altitudes, and predicts fallout arrival times.

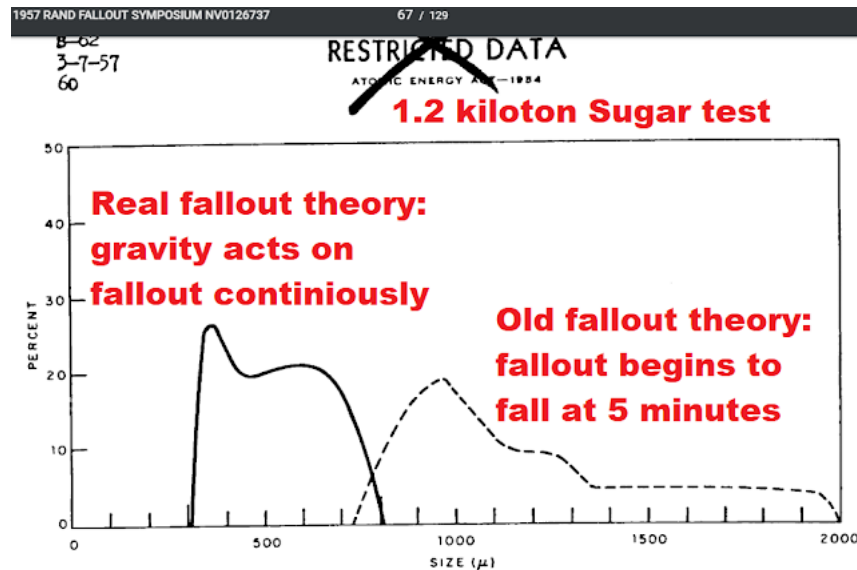


Fig.5—Size distribution received at the ground for new theory and previous theory at 10 minutes after detonation

1957 RAND Fallout Symposium: Anderson's comparison of predicted accurate fallout distribution (solid line) being deposited 10 minutes after the 1.2 kiloton sugar test, with the inaccurate model prediction based on the false assumption of fallout beginning for all particle at 5 minutes from uniform mushroom distribution (dashed line). Anderson predicts a smaller average particle size.

Neutron bomb secrets on Opennet: while searching Opennet, I found something else that is vitally important, already available for download as a PDF. It's **Johndale C. Solem's great 1982 Secret Los Alamos report LA-9004 on the neutron bomb, The ultra-low yield antitank weapon, the teeny tiny tacnuke**, complete with declassified markings showing it was "Nuclear Weapon Data Sigma 1: Critical Nuclear Weapon Design Information", in a limited edition of just 79 printed copies:

LA-9004

~~SECRET~~ D00033413 Nuclear Weapon Data

~~Sigma 1~~

~~Critical Nuclear Weapon~~

~~Design Information Per~~

~~DoD Directive 5210.2~~

~~Issued: January 1982~~

This document consists of 10 pages

No. 52 of 79 copies, Series A

The Ultra-Low Yield Antitank Weapon

The Teeny Tiny Tacnuke (U)

REDACTED COPY

Johndale C. Solem

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SCANNED JUN 23 1998

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University of California

LOS ALAMOS SCIENTIFIC LABORATORY

Post Office Box 1663 Los Alamos, New Mexico 87545

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THE ULTRA-LOW YIELD ANTITANK WEAPON
The Teeny Tiny Tacnuke (U)

by

Johndale C. Solem

ABSTRACT ~~(C, R, D)~~**DELETED**

The effect of such a device on tank crews is shown to be consistent with the P₁ of unity for ballistic delivery systems. Estimates of collateral damage indicate that such a device could be used in close proximity to civilian populations with minimal hazard.

THE W79

The W79 is an 8-in., enhanced radiation, artillery fired atomic projectile. The device is in production and will enter the stockpile in the early 1980s. It is about 44 cm long and weighs about 200 lb complete with its arming, fusing, and firing system and its rocket assist. The range of the projectile when fired from an 8-in. howitzer is about 32 km.

TACTICS

Should a European Theater conflict escalate nuclear level, the effect will be to force Soviet and Pact armies to disperse formations of tanks having large numbers incapacitated by a single Denying an aggressor force the use of massed armor is the single most important aspect of W79.

~~SECRET/RD~~**DELETED**

Whether a device with a lethal range as great as the W79 is an optimal weapon against massed formations of tanks is much debated; nevertheless, it remains a significant achievement of the technological community to get such an advanced device into the tactical stockpile.

The principal purpose of this report is to propose a complement to the W79 for the one-on-one engagements with tanks that will result from their forced dispersal.

THE ONE-ON-ONE ENGAGEMENT

A war with a technologically sophisticated enemy such as the Soviet Union will present extremely stressing countermeasures to high technology weapons systems. Although I have great faith that precision guided munitions of extraordinary accuracy and durability will be developed, the survival of such devices against countermeasures and in the severe environment of a nuclear war is certainly unproven. Almost any beam-riding weapon, using a laser or radar guidance system, is vulnerable to

countermeasures and can reveal the position of a tank. Devices employing low levels of art intelligence such as pattern recognition gadgetry are vulnerable to suffer from smoke, dust, and chaff. Wire-guided fiber-optic-guided munitions also suffer from countermeasures, mainly owing to their intrinsic lack of precision. For every new guidance system a new target will be discovered to defeat it. Furthermore, a using solid-state microcircuitry are vulnerable to magnetic pulses.

SIMPLICITY IS ELEGANCE

There is no countermeasure to a ballistic delivery mechanism. What weapon is then appropriate to ballistic delivery? Typical one-on-one engagement distances? Non target will be acquired at ranges of about 2 km. be purely visual contact. Normally, ballistic delivery distances do not exceed 7 1/2 miles; that is, 7.1 km. The type of circular error probability varies with type of ballistic delivery mechanism, and because

~~SECRET/RD~~

LA-9004 from 1982, secret (now declassified with deletions of design information) states in its abstract (page 3) that: "Estimates of collateral damage indicate that such a device could be used in close proximity to civilian populations with minimal hazard."

LA-9004 then describes the kiloton W79 neutron warhead (44 cm long, 200 lbs including firing system, capable of being fired 32 km from a 8" howitzer),

and explains correctly that the whole point of such weapons is to *deter the concentrated blitzkrieg assaults that started WWI in 1914 (the invasion of Belgium by concentrated force) and WWII in 1939 (the invasion of Poland by concentrated force). The principle of concentration of force can be deterred with nuclear weapons, thus preventing the invasions that trigger wars. By forcing enemies to disperse their forces, any attacks that are made can be dealt with using conventional weapons like handheld anti-tank rockets (no use against concentrated firepower, but useful against dispersed forces), preventing invasion and WWII:*

"Denying an aggressor force the use of massed formations of armor is the single most important aspect of the W79."

LA-9004 then goes on to suggest a lower yield version of the W79 for use against individual tanks, like the Kennedy era portable 0.02 kt W54 that could be fired by individual soldiers, air burst at 15 metres altitude to eliminate local fallout, blast and heat collateral damage. Page 5:

"Tank crews within 25 m of the weapon would be immediately incapacitated. Civilian populations 300 m from the point of detonation would be completely safe. ... Beyond 300 m, exposed personnel might be temporarily blinded from looking directly at the detonation, but would suffer no burns to exposed skin. ... The effect of blast on civilian structures near the battlefield would be trivial. Three hundred metres from the point of detonation windows would rattle but not break. ... the fallout would be expected to be confined to the battlefield itself. ... The principal advantage of such a device in reducing collateral damage from local fallout is that it simply does not produce much in the way of fission fragments or activated weapon debris."

LA-9004 then points out, on pages 7-8, that such a defensive low yield weapon with no significant risk of collateral damage is of no significant use to terrorists, contrasted to easy-to-procure alternatives.

UPDATE (5 February 2018): origins of fallout decay data in Glasstone's Effects of Nuclear Weapons

DRAFT REVISION

EFFECTS OF NUCLEAR WEAPONS
CHAPTER IX

RESIDUAL NUCLEAR RADIATION AND FALLOUT

Sources of Residual Radiation

By

T. G. Brough
C. F. Miller

April 15, 1960

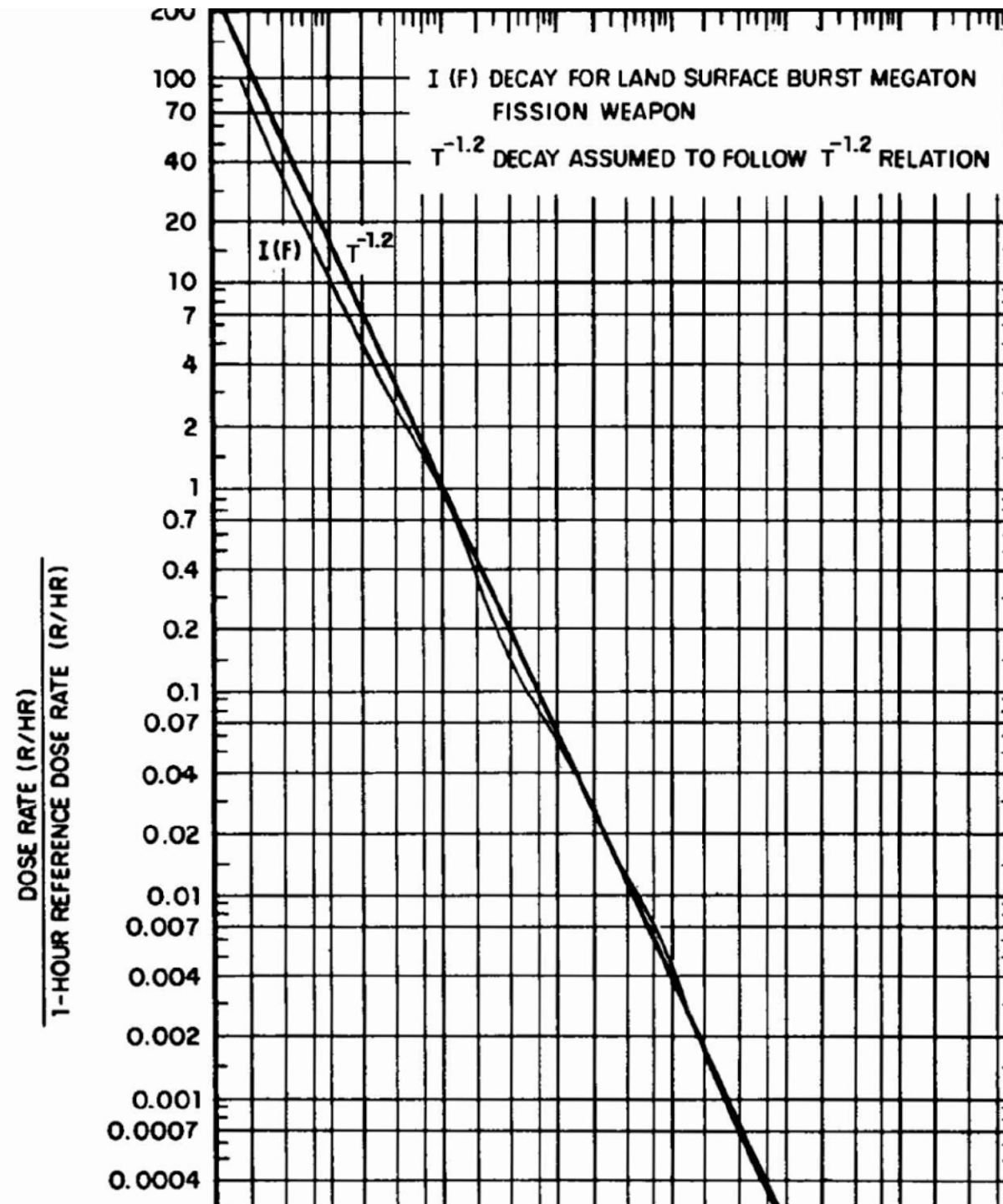
Martha DeMarre of the Nuclear Testing Archive has kindly supplied a PDF of the **US DOE Opennet document NV0060036, the 15 April 1960 draft revision of the fallout decay activity section in Glasstone book *The Effects of Nuclear Weapons*, which was done by T. G. Brough and Dr Carl F. Miller of the U.S. Naval Radiological Defense Laboratory, California.** We have placed this PDF on internet archive, [here](#). The reason for investigating this is that the fallout decay graphs and tables in the 1977 edition of Glasstone and Dolan are identical to those in the 1962/4 editions, which differ from the 1957 edition. Therefore, the current version was developed between 1957-1962, and **this chapter revised draft by Brough and Miller from 1960 was clearly influential.** However, it is clear that Glasstone performed extensive additional changes to the 1960 draft before it was published in 1962.

In paragraph 9.6 of the revision, Brough and Miller explain: "the maximum radiation intensity of fallout from megaton detonations occurs at 50 to 75 miles downwind from the explosion centre."

They state in that paragraph that 1 fission megaton of fallout spread uniformly over 10,000 square miles would produce 410 R/hr at 3 feet height, with 10 R/hr of this 410 R/hr being neutron induced activity, and then they clearly explain that this dose rate is *reduced* in reality by the effect of the "**fractionation losses**" (i.e. the observed depletion of volatile nuclides from local fallout), which:

"reduce the above mentioned radiation level at 1 hour from a value of 410 to 162 roentgens per hour."

This is far more specific and quantitative than the vague, entirely qualitative discussion of fractionation that made it into the 1962-1977 book!



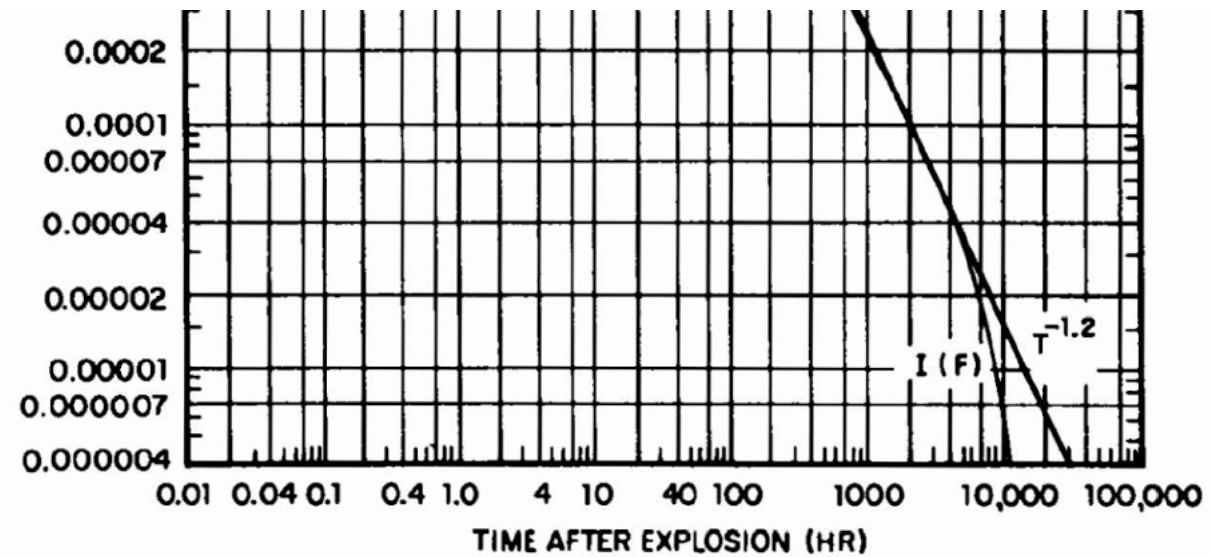
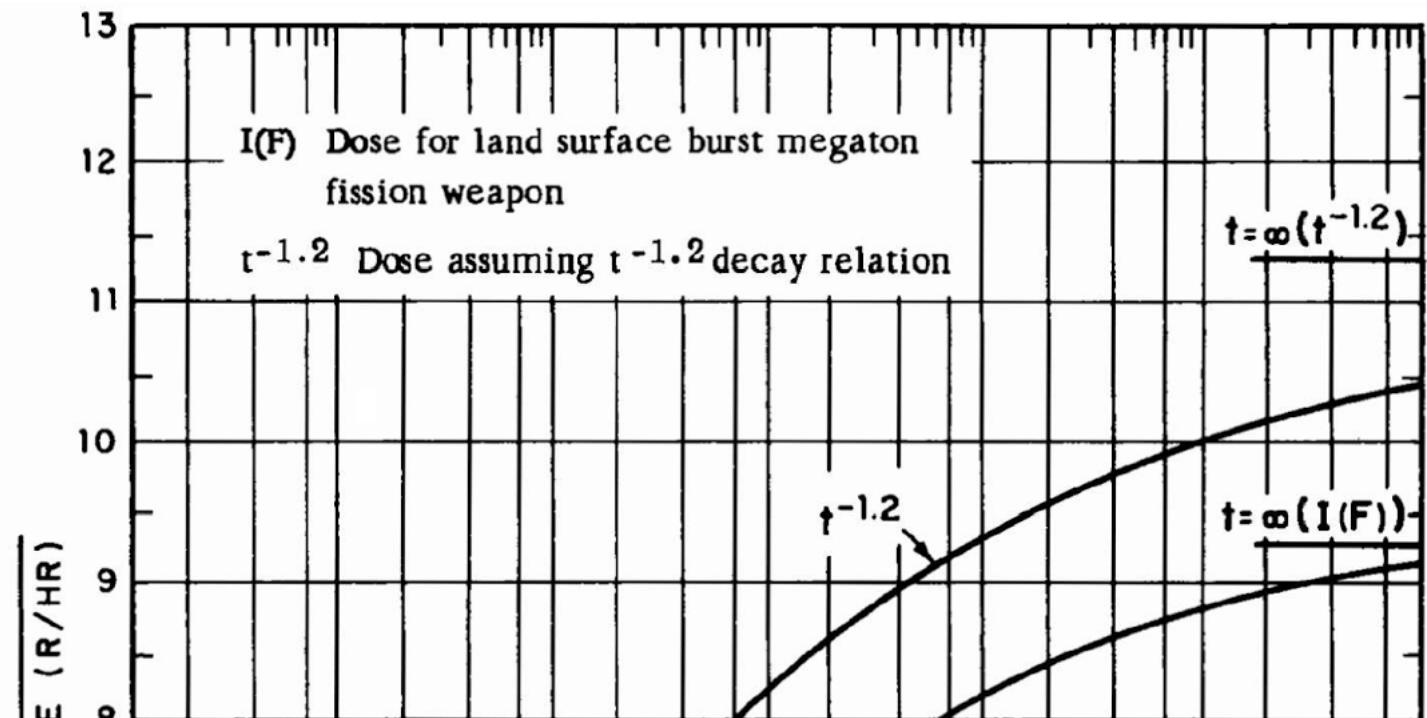


Figure 9.8 Decrease of dose rate from fission products with time



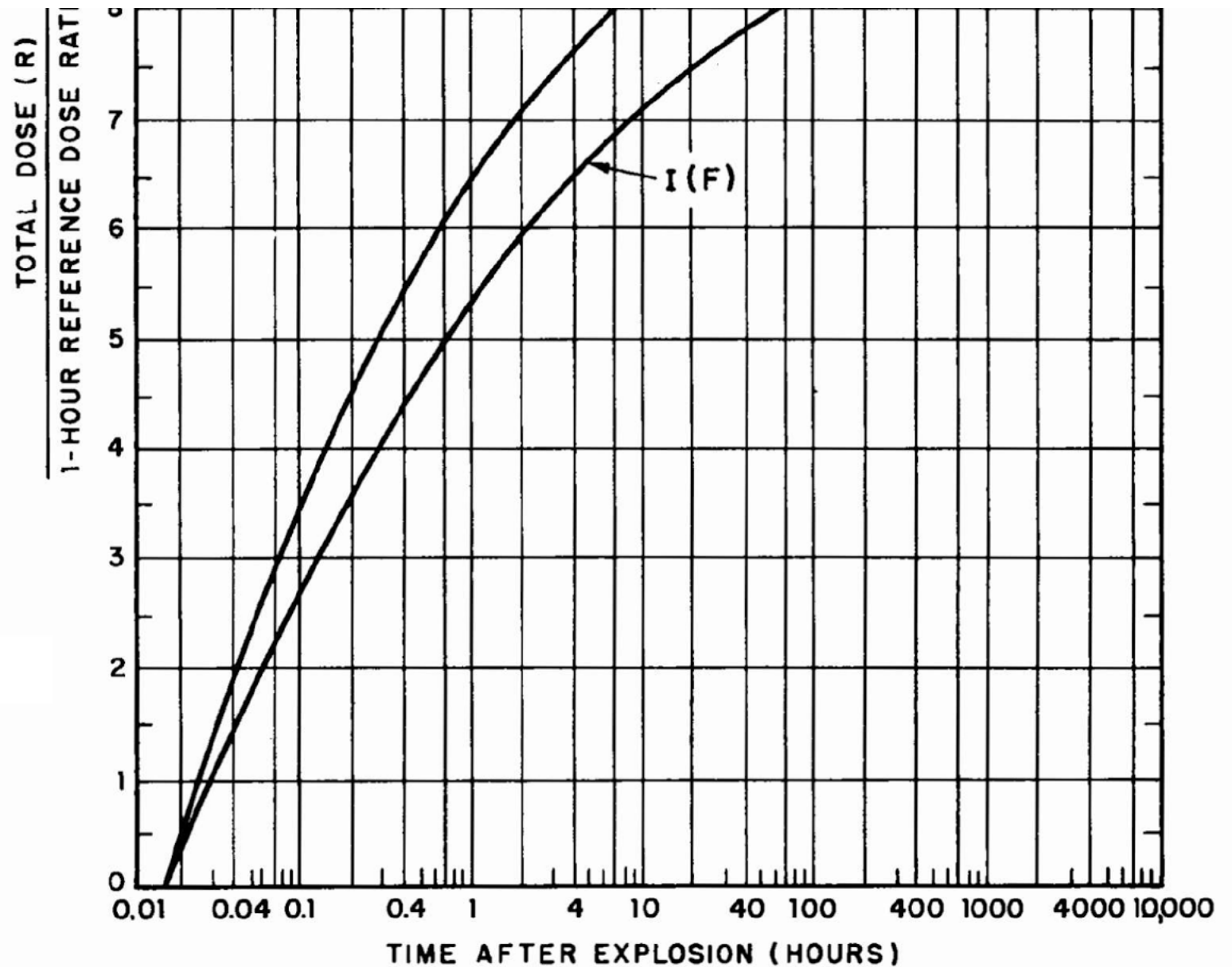


Figure 9.12 Accumulated total dose of residual radiation from fission products from 1 minute after explosion

Above: Brough and Miller's calculated revision to Glasstone's 1957 *Effects of Nuclear Weapons* fallout decay rate and accumulated dose graphs, which differ from those actually published in the 1962-77 editions! Paragraph 9.111 at page 21 of their draft chapter revision also explains clearly than Glasstone's final version, just how the gamma ray energy of fallout varies with time and with the 0.105 MeV low energy contribution to the gamma ray spectrum caused by the neutron induced Np-239 content which is inevitable in dirty weapons with U-238 jackets that capture neutrons, and are not solely fissioned by neutrons (a fact essential for understanding how much shielding is needed to protect yourself against it, bearing in mind that fallout protection factors are calculated using the standard pseudo assumption that the gamma rays are like those from cobalt-60, which emits 1.17 and 1.33 MeV high energy gammas, a mean of 1.25 MeV, way higher than fallout):

"... the weighted mean energy of the gamma rays is about 0.92 Mev/photon at 1 hour after fission. The mean value decreases with time during the first and second day after fission, and remains between 0.5 and 0.6 Mev/photon up to about 3 weeks after fission ... If the mixture contained neutron induced activities, such as U-239 - Np-239 in large amounts, the mean energy at early times would be much lower."

They even gave a table (Table 9.111 in the draft) showing that the mean energy of fission product gamma rays is 0.61 MeV (less than half the 1.25 MeV Co-60 average) at 24 hours, and 0.52 MeV at 2 days after burst, and remains around 0.5 MeV for the rest of the standard 2 week civil defense fallout sheltering period! This is without the reduction caused by the very low energy gamma rays from neutron induced Np-239 and U-237.

These facts, deleted from Glasstone's published final version, **reflect WT-1317 coauthor Dr Terry Triffet's June 1959 round table conference testimony on page 205 of the US Congressional Hearings on the *Biological and Environmental Effects of Nuclear War*, where he explains that this low gamma ray energy in dirty weapons increases the protective factor of shelters far above that usually assumed!**

Brough and Miller's draft revision states at page 27 that their decay rates assume 8 MeV neutron fission of U-238, giving at 1 hour after burst 3600 R/hr per fission kiloton yield deposited per square mile, which is reduced to 1480 R/hr by fractionation, to which Np-239 adds 144 R/hr (this is a small percentage contribution at 1 hour, but becomes a much bigger contribution at 96 hours after burst due to differing decay rates of fission products and Np-239 which has a half life of 56 hours).

Update (8 March 2018): double agent Sergei Skripal and daughter Yulia nerve agent skin contamination in Salisbury on Sunday 4 March 2018.

Inhalation or ingestion in food of nerve agents produces symptoms too rapidly (i.e. a matter of seconds) for Russian double agent Sergei Skripal and his daughter Yulia to have walked capably as seen on CCTV video at 3:47 pm on Sunday to a bench where they were found with totally "white eyes" (i.e. the pupils contracted to invisibly small points due to nerve agent) at 4:03 pm. At 4:15pm police and paramedics arrived and were contaminated, suffering injury.

The victims would have collapsed where they were exposed, with no contamination to others, if poisoned by any nerve agent through ingestion or inhalation at the Zizzi restaurant in Salisbury. Skin absorption is much slower, since the dead layer of skin (tens of microns thick) slows down the infusion of nerve agent into the blood stream and thence to nerve endings.

Eye pupils contract to invisibly tiny points due to muscle contraction, so that the eyes appear totally white and glazed; a temporary nerve agent effect that lasts until atropine is administered:

"Her eyes were just completely white, they were wide open, but just white and she was frothing at the mouth." - Jamie Paine, eyewitness.

Eyewitnesses Jamie Paine, Freya Church and Graham Mulcock said that Yulia was unconscious, while Sergei had lost his sight, but could still move his arm

past his eyes while slumped, facing the sky.

Colonel Skripal of the Russian FSB (Putin's successor to KGB) was British Intelligence MI6's most valuable double agent for ten years, and gave us the details of Russian agents working in the West, for which he was sentenced as a traitor to 13 years in jail by Putin in 2006. But in 2010, he was traded with the infamous Russian honey trap spy, "Anna Chapman" (aka Anna Kushchenko, born 1982) and 9 others in a spy swap. President Putin declared at that time that Skripal and other defectors were "traitors" who "will kick the bucket" because they had "betrayed their friends, their brothers in arms. Whatever they got in exchange - those 30 pieces of silver - they will choke on them."

Putin is seeking 70% of the vote and another 6 years in power in the forthcoming Russian elections, to be held on 18 March. Because defectors are "traitors" to the Russian Nationalists who vote for Putin, their assassination may be politically helpful. In addition, it may deter opponents of Putin from standing in his way. In 2006, the FSB was granted the Russian legal authority to liquidate enemies abroad, on Putin's orders. Former Colonel Alexander Litvinenko was then assassinated with Po-210 (of Russian isotopic composition) in his teapot by Russian agents, in a London restaurant in 2006.

After Skripal was traded for Russian spies in 2010, he bought a £260,000 four-bedroom house in Salisbury with cash, and reportedly gave guest lectures about the FSB to British military students. Skripal was described as friendly and happy by local shopkeeper Ebru Ozturk, 41, and by his neighbour James Puttock. However, he was very impatient with the delay of service of his lunch in the Zizzi restaurant after arriving at 2:30pm. This possibly suggests that he had a meeting scheduled for around 3:30pm (with assassin?). *It is even possible that the meeting was deliberately scheduled to occur on the bench they were found on, the seat being sprayed with liquid nerve agent by the assassin, so that no face-to-face meeting occurred (i.e. they may have been poisoned by sitting on the seat).*

Paragraph 20 in the 1972 *Medical Manual of Defence Against Chemical Agents* (Ministry of Defence publication J.S.P. 312) explains this difference in symptoms following inhalation/ingestion and (slower) skin absorption, and the fact that the policeman treating the victims himself was contaminated and seriously affected proves that the source must have been skin contamination:



Ministry of Defence

Medical Manual of Defence Against Chemical Agents

Signs and Symptoms

48. These vary with the route and severity of poisoning. Some agents, *e.g.*, GA and GB, are normally vapours and others *e.g.*, VX, are normally liquids. The

GA (Tabun)
O-Ethyl, N, N-dimethylphosphoramidate

former attack principally by the respiratory route, the latter mainly through the skin.

49. Respiratory route. Poisoning may be mild or severe.

- (a) *Mild poisoning.* Signs and symptoms may become noticeable within a few minutes of inhalation of even quite low concentrations of nerve agent. These are tightness of the chest, rhinorrhoea and salivation, miosis with dimming of vision and difficulty in accommodation accompanied by frontal headache.

These signs and symptoms are largely due to the local absorption of nerve agent and may be expected to persist for only a few hours, although headache and visual difficulties may last up to three days.

- (b) *Severe poisoning.* The signs and symptoms referred to above become more pronounced; salivation and rhinorrhoea become so profuse that watery secretions run out of the sides of the mouth. Respiration becomes laboured because of obstruction from broncho-constriction and fluid in the airway, and audible wheezing will occur. Systemic effects from general absorption of the agent will become apparent leading to more marked miosis and severe sweating. Abdominal effects become prominent with profuse and uncontrollable vomiting, colicky pain and involuntary defaecation and micturition.

Muscular weakness occurs with fasciculation, convulsions and paralysis.

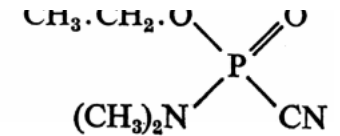
Death is due to asphyxia, and may occur within minutes.

50. Cutaneous route. Local effects as described in para. 49a do not occur. The syndrome consists of those systemic effects described in para. 49b, preceded by general malaise. The progress of events is slower than in poisoning by the respiratory route.

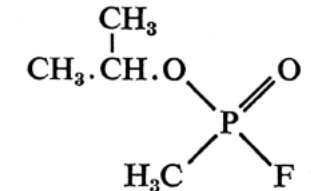
51. Gastro-intestinal route. The onset of signs and symptoms from the ingestion of food and water contaminated with nerve agent is likely to be more rapid than the onset following skin absorption. The syndrome, however, is similar.

Nerve gas symptoms of Sergei Skripal suggest slow acting skin contamination. That book recommends for treatment a dose of 4 grams of Pralidoxime Mesylate (so-called "oxime" in chemical warfare) in conjunction with sufficient atropine to relax muscles (i.e. to return the eye pupils from tiny points to normal size, 2mm diameter or so, and to return the heart rate to normal 72/min).

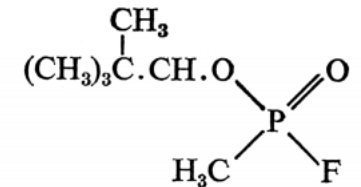
The weather was relatively cool (around 7-10C) that Sunday afternoon, with a thaw that day melting all of the record early spring snowfall across Britain that had occurred on 28 February-1 March, so liquids would have evaporated gradually from skin, leaving contamination present for the time scale of the pre-hospitalisation emergency. The manual also gives a nice *differential diagnosis table* (Table V, pages 45-46) specifically to IMMEDIATELY identify the type of nerve gas poisoning, from a proper, full analysis of all the symptoms observed (and to distinguish other gases):



GB (Sarin)
O-Isopropyl methylphosphonofluoridate



GD (Soman)
O-1,2, 2-Trimethylpropyl methylphosphonofluoridate



Nerve gas symptoms of Sergei Skripal suggest slow acting skin contamination not fast acting inhalation/ingestion



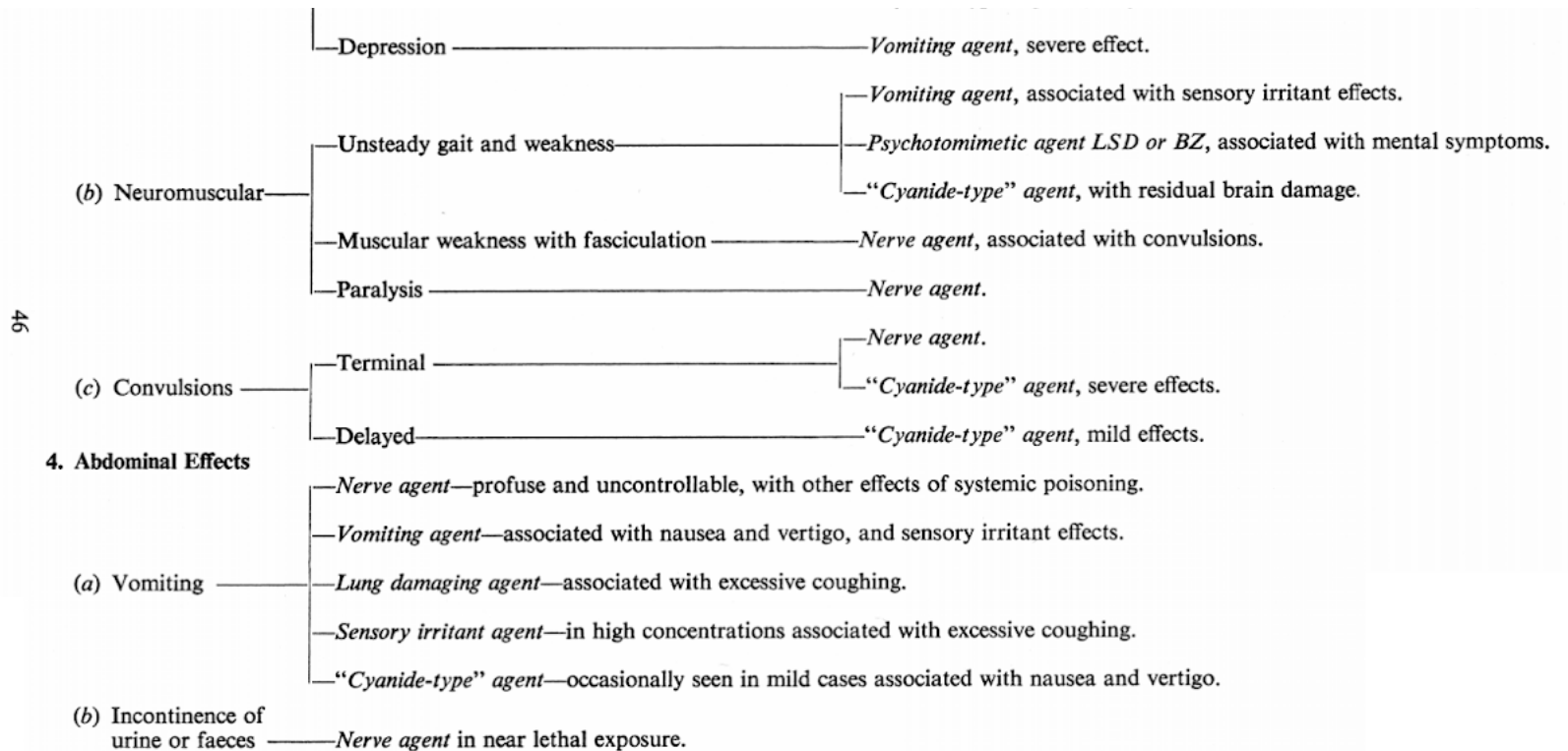
Ministry of Defence

Medical Manual of Defence Against Chemical Agents

TABLE V

Summary of Clinical Effects of Chemical Agents and their Differential Diagnosis

| | | |
|-----------------------|------------------|--|
| 1. Skin | | |
| (a) Colour | Grey or cyanosed | <i>Lung damaging agent</i> —(late effects) respiration increased, cough, pain and dyspnoea, followed after latent period by expectoration and evidence of pulmonary oedema (transient cough— <i>sensory irritants</i> and <i>vomiting agents</i>). |
| | | “ <i>Cyanide type</i> ” <i>agent</i> —respiration slowed with increased depth, followed by cessation of respiration. |
| | | <i>Nerve agent</i> (late effects)—Laboured respiration from broncho-constriction and fluid in airway. |
| | Erythema | <i>Sensory irritant agent</i> —transient blotchy pattern, especially on moist areas on exposure to high concentrations (transient effect on eyes and respiratory tract). <i>Vesicant agent</i> —prolonged effect followed by vesication and/or blistering. (May be associated with severe effects on the eyes and respiratory tract). |
| (b) Sweating | | |
| | Excessive | <i>Nerve agent</i> —also salivation, rhinorrhoea and excessive bronchial secretions (transient salivation and rhinorrhoea from <i>sensory irritants</i> and <i>vomiting agents</i>). |
| | Diminished | <i>Psychotomimetic agent</i> (BZ). |
| 2. Eyes | | |
| (a) Red and watering | | <i>Sensory irritant agents and vomiting agents</i> —transient effects only. <i>Vesicant agents</i> —also oedema of eyelids, severe conjunctivitis and oedema of cornea. Temporary or permanent blindness. |
| (b) Pupil | | |
| | Miosis | <i>Nerve agent</i> . |
| | Mydriasis | <i>Psychotomimetic agent</i> (BZ). |
| 3. CNS Effects | | |
| (a) Mental state | | Disinterested, aloof and unresponsive to commands— <i>Psychotomimetic agent e.g., LSD</i> . Confused with delusions and aimless behaviour — <ul style="list-style-type: none"> <i>Psychotomimetic agent e.g., BZ</i>. “<i>Cyanide-type</i>” <i>agent</i> (delayed effect with residual brain damage). |



The point about the differential diagnosis table for chemical warfare symptoms is that you regularly see baffled and confused reporters on TV news talking about the symptoms seen in various gas attacks in Syria, which is simply unnecessary. This military UK chemical war medicine book was published in 1972 by H. M. Stationery Office (UK government bookshop/publisher), with unclassified, unlimited distribution permitted.

Ironically, the corresponding 1965 UK government civil defence manual, *The Detection and Identification of War Gases*, was classified Restricted (banning it from the eyes of the "free" press). It contains very useful data in Table I (page 47) on the evaporation rates, relative to water, of nerve gases. For example, nerve liquids tabun and sarin are stated to take 86 times and 2.95 times, respectively longer to evaporate than water at 15C.

For mustard gas and lewisite (not nerve gases, but blister agents) the table gives evaporation times, respectively, 58 and 9.5 times slower than water. This kind of comparison with water seems more useful to really grasping the nature of the threat by understanding the persistence of liquid nerve agents, than the usual statements giving specific persistence times in hours in most chemical war handbooks (these times are usually for something like for 90% of a deposit of 10 grams/square metre to evaporate under standard laboratory conditions, or for a range of different surfaces, which makes the data hard to comprehend and understand by reference to normal experiences). We all know that the persistence of water spills and droplets depends on their size, on the temperature, etc. Giving persistence relative to water is more helpful for grasping the magnitude of the delayed hazard.

Some additional interesting facts that the media are not alluding to at present:

(1) This nerve liquid poisoning of former double agent Colonel Skripal, aged 66, and his daughter Yulia, 33, seems at first glance to have been bungled by the FSB (Putin's modernised KGB), just as the poisoning of former FSB agent Alexander Litvinenko by alpha radiation from Po-210 in his teapot (which has longish 138 days half life!) in London in 2006. Why use these agents, nerve agents and radioactive materials which can be fingerprinted to Lubyanka Moscow FSB headquarters (by isotopic impurities and so on, since Po-210 is produced by irradiating bismuth with neutrons in a reactor, the results

depending on irradiation time)? Why not use a commonplace chemical poison bought in Britain, or shoot the person? Thus, clearly Putin's FSB is deliberately sending out a signal to deter dissidents by making them fear the reach of Russian influence abroad, in Britain. He is not trying to quietly make people disappear, but to provoke terror.

(2) This is an old tactic, reminding us of Stalin's order for his enemy Trotsky (author of *The Revolution Betrayed*, an attack on Stalin) to be eliminated by an agent using an ice pick in Mexico (a country that never gets ice!), or of the umbrella-type injector used to fire a small pellet containing lethal ricin into the back of the thigh of Bulgarian (Warsaw Pact) communist dissident Georgi Markov, aged 49, **at a bus stop in London on 7 September 1978. Markov had been standing at the bus stop to get a bus to the BBC at Bush House.** Four days later he died in hospital in London from ricin poisoning. His was a slow, painful death that allowed the assassin to escape and led to blanket news scare stories that probably deterred other dissidents from speaking out against communist Bulgaria.

This is probably the point about the skin contamination with nerve liquid on Sunday and the teapot contaminated with polonium-210 twelve years ago: these poisons acted slowly enough to allow the assassins to escape Scot free (which would be less likely if the attack was clearer to identify, such as an assassin's gun shot), and also maximised the suffering of the victims, thereby making news headlines and thus helping to deter future episodes. Most dissidents will probably shut up and hide away now. It does however bring back memories of the Cold War.

The prolonging of the Syrian civil war to help Moscow's friend Assad win, by Russian vetoes on (pseudo) "United Nations" propaganda lies (a nasty fascist tactic to prolong terror by replacing actions with double talk and utopian fantasy, costing many thousands of lives), and the invasion of Eastern Ukraine and the seizure of Crimea in January 2014 have already shown the situation plainly. Is Russia really that impoverished? It doesn't have the colossal national debts (trillions of dollars, trillions of pounds) that West has. Overall, the "wealth" of the West is more or less cancelled out by its debt obligations. Russia's economy is weak compared to the West, but by the very fact, it is more resilient to crises on stock markets, debt interest rate hikes, and so on. **It is investing heavily in new nuclear weapon delivery systems, according to Putin's recent 1 March 2018 speech to Russia's Federal Assembly, such as underwater nuclear drones.**

Putin reveals "invincible" Russian nuclear weapons



Above: President Putin is taking the approach of Ronald Reagan or "Iron Lady" Thatcher by standing up to the West and its allies, including dissidents such as Colonel Sergei Skripal, which boosts his popularity for forthcoming Russian elections. In a way, he is justified in asserting Russian nationalism and challenging the Western hostility towards Russia that is hypocritical in that, as soon as someone like Trump is elected, or Brexit is voted in, the socialist media goes off democracy! Certainly if you want strong leadership, Putin is that. Similarly, Islam is a strong religion in the sense that its followers are generally less hypocritical and undisciplined than many Christians. It boils down to moral compass values: do you put principled ideals ahead of practical realities, like military power and enforcing discipline? We can respect Putin for his toughness, without agreeing with everything he does.

We should use Cold War successes to deter the kind of invasions that trigger off major wars. Appeasement was a not a failure because Chamberlain went to

meet the dictators in September 1938; it was a failure because, when he went, he lacked the military power to make his wishes credible (Reagan met Gorbachev at the October 1987 summit with a very different outcome, because Reagan's handshake "appeasement" was *backed up with immense thermonuclear power!*). The lesson is that you get peace only when you negotiate from a position of strength, not weakness.

Update (13 March 2018):

Russia has been given until midnight to explain how the Russian made nerve agent came to be used against a Russian dissident in the UK. The nerve agent was named by the British Government yesterday as Russian **Novichok** class (the Russian for "newcomer"), some of which are reportedly 5-8 times more lethal than VX (which North Korea used last year at an airport to eliminate Kim Jong-Nam, the defector and half brother of dictator Kim Jong-Un). Novichok works in the same way as all other organophosphate nerve agents, causing muscles to contract tightly by inhibiting the enzyme acetylcholinesterase which normally breaks down acetylcholine, the chemical that triggers muscular contraction. Therefore, atropine is still valid and helps to counteract Novichok by relaxing muscles.

The UK government's response, in waiting a week before instructing almost 500 people who were in the affected areas to wash their clothes and wipe their phones clean, seems to be the usual groupthink civil defence bureaucracy which combines official secrecy with fear of causing a panic, and ends up giving out advice that is so over-simplified that it appears to be directed at two-year-olds. The ultimatum to Russia's Foreign Minister Sergey Lavrov, who has the same poker faced lawyer mentality of the USSR's Brezhnev era Andrei Gromyko (who denied the existence of Russian missiles in Cuba to President Kennedy's face in 1962), is likely to lead to an escalation of the crisis, instead of deterring aggression and thus keeping civil relations. Sanctions failed against Japan (1937-1941) and Iraq (1992-2002), unlike credible deterrence (i.e. Reagan's experience, in the 1980s).

Update (18 March 2018):

Britain's Foreign Secretary has disclosed that there is evidence Russia has for the past 10 years been building up an illegal stockpile of Novichok nerve agent, contrary to its treaty obligations:

Boris Johnson has said the UK is in possession of evidence that Russia has been exploring nerve-agent based assassinations and that the country has been stockpiling deadly chemical weapons in the last decade.

The Foreign Secretary in particular claimed Britain has reason to believe Moscow has been collecting the "military grade" Novichok nerve agent that the UK Government says was deployed in the Salisbury attack.

He made the comments moments after a senior Russian diplomat claimed his country has no stockpile of any nerve agent, and even suggested the source of the chemical used in Salisbury was the UK's Porton Down military laboratory.

- <http://www.independent.co.uk/news/uk/politics/boris-johnson-russia-nerve-agent-stockpiling-chemical-weapon-assassinations-a8261771.html>

This has implications for other Russian weapons of mass destruction, for example their nuclear weapons stockpile figures, which may similarly be misleading. In other words, there is reason to distrust claims of disarmament in accordance to paper treaties, just as occurred from 1933 onward in Germany. Because you acquire a signed declaration, you feel assured that you have achieved peace. If, however, one side is dishonest, then your confidence becomes not only groundless, but dangerously deceptive, because you will point to the paper and signature as an excuse to disarm relative to the (secretly rearming) aggressor.

After the 1930s "disarmament of Germany" delusion, "arms control" used international inspectors to verify the crushing of specific numbers of missile shells, i.e. the relatively large delivery systems. However, as we saw when arms control inspectors were trying to assess Iraq's WMDs before 2002, it is harder to police chemical war agents and even the small masses of nuclear fissile materials inside warheads, due to secrecy and the amounts of material

involved. Iraq probably hid its chemical weapons in barrels under the desert sands, where they remain. Is that "destruction" or "stockpiling"? *Just because you can't readily find a needle in the proverbial haystack, does that disprove that the needle exists there somewhere? Or is it more like a game of hide and seek?*

SUMMARY

Russian now has illegal stockpiles of Novichok nerve gas for war use, which it denies having. Due to the appeasement of Putin, there are 346,000 confirmed dead in Syria, another 56,900 missing presumed dead, 13,100,000 living in misery, and 5,600,000 refugees. In August 2012, President Obama, who had already received the Nobel Peace Prize, stated that the: "*red line for us is we start seeing a whole bunch of chemical weapons moving around or being utilised.*" Putin supplied Assad to gas 400 kids and 1,100 adults in Damascus. President Obama withdrew his stated "red line". *Last April, Trump ordered retaliation against Assad's air base in response to Assad's sarin attack on Khan Sheikhoun. Too little, too late. But Trump was not President when the Syrian war began at Deraa in March 2011, when Assad massacred pro-democracy supporters. Somebody else was. Guess who?*

Again, I'll repost the following call for common sense in the face of this new gas threat:

Daily

Richard & Judy

BRITAIN'S BEST-LOVED TV COUPLE AND WIFE TEAM REFLECT ON THE WEEK'S EVENTS EVERY SATURDAY IN YOUR DAILY



Let's send gas masks

R "WAR," the novelist Evelyn Waugh once said, "is one-third pummelling, two-thirds propaganda."

I'm not sure that could be said of the murderous conflict in Syria where I think the reverse of Waugh's dictum applies but propaganda nevertheless has its place. And after last week's depraved gas attack on civilians by Assad's psychotic regime, I wonder if we're missing a trick.

Condemnation, yes. Retaliatory air strikes and accompanying rhetoric, certainly. But here is an idea...

Why don't we supply gas masks to the besieged people of Syria? We could use our foreign aid budget. Spend it on something useful for once instead of

crackpot schemes such as helping fund a Spice Girls-type girl band in the horn of Africa (thankfully abandoned last year after a public outcry) or funnelling money through corrupt regimes where it vanishes like water in the sand, never reaching the starving or dispossessed.

Sending gas masks to Syria would be profoundly practical and supremely symbolic.

It would give people living under the Assad government siege small comfort in their suffering, a ray of hope should the worst happen again. But it would send a very public message to Assad and his backer,

WE wish you all a happy and joyous Easter. Come - summer is nearly here

Daily Express columnist calls for gas mask civil defence, Daily Express, 15 April 2017, page 19.

Doubtless, Labour leader Jeremy Corbyn will continue to hurl abuse at anyone who wants civil defence to help save lives, but at least he is thereby showing his true colours of anti-Western hatred:



Jeremy Corbyn's BBC "Newsnight" **propaganda poster (the hat is NOT photoshopped to look like Lenin's - it was a copy of Lenin's in the original which fits into all of Corbyn's Marxist dogmatism, contrary to claims that the BBC is against Corbyn which is "fake news")**, to maximise his Communist fan base vote, supporting Putin to gas kids in Syria. **Source of poster: [click here](#)**. (For more on Corbyn's hatred of the truth, please see the previous blog post or **this article**; the pseudo-liberal, democracy hating, nuclear effects lying mindset is the same as the German leader elected in 1933 on a promise of eugenics pseudoscience, *borrowing* money to supposedly "invest" in national debt for unprofitable nationalised industry, and then provoking a war to divert attention from the economic failure due to the debt problems. That's "socialism" in a nutshell; we have covered Jeremy Corbyn's CND ranting lies against simple lifesaving civil defence for use in Syria again and again. He ignores it all. **But Russia is not the sole problem; the "socialists" support ALL terrorists and thugs in the ill-informed belief that they can exploit it for "divide and rule" politics. This is why they supported IRA bombers, the USSR, ISIS, and the Nazis who invaded Poland JOINTLY with the USSR in 1939, a collaboration of racist terrorists and evil mass murderers that lasted until June 1941! Until the media, historians, and scientists begin to face up to the unvarnished facts about the "communist" racists, they will continue as they did in 1936, when many attended the Nazi Olympics (instead of at least boycotting it!), and simply ignored the terrorism by uncritically accepting the enemy propaganda lies for "peace". Their idea of "peace" is genocide in concentration camps, denouncing deterrence and civil defense to be "warmongering", and so on! They are completely deluded by fascist Marxism, an intolerance of free speech and objective criticisms!**)

*Update (22 March 2018) on the **Novichok A234** nerve agent and Russian denials/propaganda*

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Nerve agent attack on spy used 'Novichok' poison

Chemical weapon used in U.K. assassination attempt was developed by Soviet Union during Cold War

By Mark Peplow, special to C&EN

Chemical weapons experts have identified the nerve agent used in the attempted murder of a former Russian double agent living in the U.K. It is part of a family of compounds known as Novichok agents that were developed in a Cold War-era weapons program in the former U.S.S.R. Russia now faces questions about its involvement in the attack, and indeed whether it has violated the Chemical Weapons Convention.

The nerve agent was used against Sergei Skripal, previously a Russian military intelligence officer who was convicted of leaking secrets to the U.K. He was released in 2010 and settled in Salisbury, England, where he and his daughter Yulia were poisoned on March 4.

"It is now clear that Mr. Skripal and his

[+]Enlarge

VR

A-230

A-232

A-234

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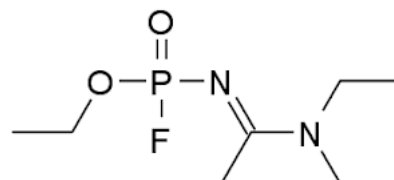
Assassination attempt of Russian spy sparks chemical forensics investigation

Novichok nerve agent A234 used by Putin against Britain in an attack on 4 March 2018 is today the top news for chemistry experts.

"Novichok – choline esterase inhibitors (Novichok 5 and Novichok 7). They are effecting very rapidly, penetrate through the skin and respiratory system. Novichok 5 exceeds effectiveness of soman by 10 times and of VX by 5 to 8 times. Novichok 5 (Substance A-232) and its ethyl-analog (Substance A-234) can be produced in binary form by using acetonitrile and an organic phosphate compound.¹² System of agent A232 components was successfully tested in Nukus Uzbekistan, in the military chemical proving ground in 1992. Existence of the "Foliant" program and Novichok were revealed in 1992 by chemists Lev Fedorov and Vil Mirzayanov in an article of the newspaper Moscow News. ... Russia has officially never acknowledged the existence of the group Novichok."

- GYÖRGYI VÁSÁRHELYI and LÁSZLÓ FÖLDI, "History of Russia's chemical weapons", *AARMS HISTORY*, Volume 6, issue No. 1 (2007), pages 135–146.

(NOTE THE DATE OF 2007 OF THAT PAPER, WHICH DISPROVES LYING RUSSIAN PROPAGANDA CLAIMS THAT PORTON DOWN HAS SOMETHING TO DO WITH THE ATTACK.)



**Novichok A234 nerve agent
used in the 4 March 2018
attack on the United
Kingdom by President Putin**

One depiction of the chemical structure of the Novichok A234 agent which was illegally used by Russia to commit a terrorist act in Britain, 4 March 2018. In olden times, this would have constituted an act of war, not an opportunity for Stalinist propaganda from Russia. Britain can test the properties of such chemicals in powerful chemical molecule simulations by computer, or by using trace amounts. Contrary to Russian propaganda, this is entirely different from making enough of the agent in a military grade for an attack. The evidence points strongly towards Putin, since he is behind covert attacks on Ukraine, Georgia, Crimea, London in 2006 using radioactive Po-210, and supplying Assad with nerve gas in Syria.

"Much of what is publicly known about Novichok agents comes from Vil Mirzayanov, an analytical chemist who worked for the State Research Institute of Organic Chemistry and Technology (GosNIIOKhT), a notorious chemical weapons laboratory. Mirzayanov developed methods to detect nerve agents created and tested in the U.S.S.R.'s chemical weapons facilities. His techniques would be used to monitor the environment for any traces of the agents that might reveal the labs' activities to foreign intelligence services.

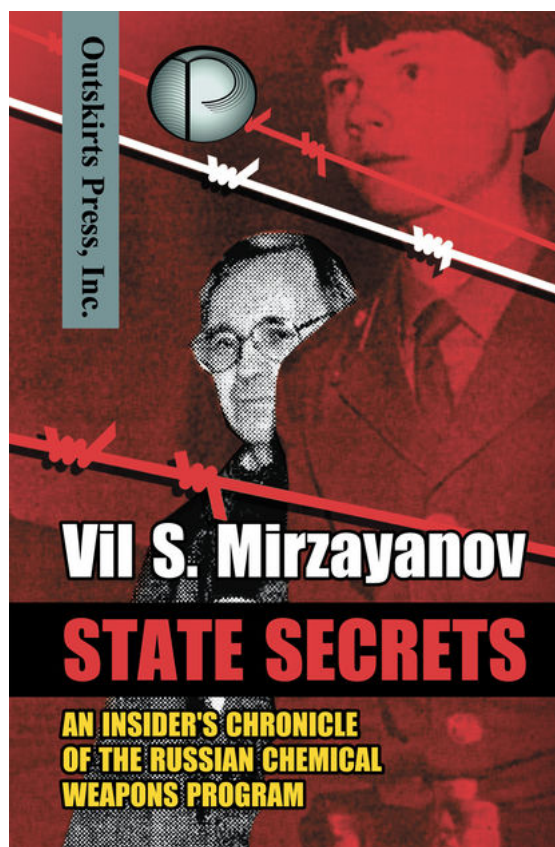
"In the late 1980s, Mirzayanov's analytical techniques revealed that nerve agents were befouling the air and water around one of these facilities, posing a major health risk. So he went public, revealing details of the U.S.S.R.'s chemical weapons program to Moscow News in 1992. Officials arrested and imprisoned Mirzayanov, but eventually dropped the case against him. In 1995, he immigrated to the U.S., where he subsequently wrote a book about his experiences, titled "State Secrets: An Insider's Chronicle of the Russian Chemical Weapons Program. Mirzayanov writes that the USSR produced a few tons of Novichok-5 and tens of tons of Novichok-7. According to Tucker, the USSR carried out open-air tests of Novichok-5 in the early 1990s on the Ustyurt Plateau, a desert area ... Novichok-5 and -7 act very rapidly, penetrating the skin and respiratory system."

- <https://cen.acs.org/articles/96/i12/Nerve-agent-attack-on-spy-used-Novichok-poison.html>

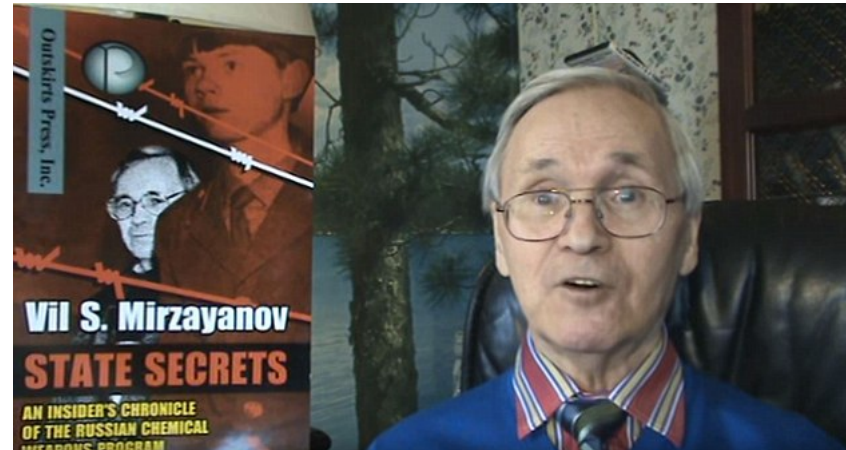
The **Novichok A234** nerve agent (the ethyl analog of Novichok-5) used in the UK has probably helped foster popularity for Putin (by reinforcing the eternal myth that Russia is surrounded by aggressive imperialists) in the recent Russian elections whereby he was re-elected for a fourth term; another 6 years as Russian President or dictator in effect, due to his tough suppression of any credible alternatives/critics.

Russian propaganda in the UK is, as in the Cold War, now exploiting the UK's pathetic bureaucratic official secrecy system to claim some conspiracy theory, that the evidence for Novichok A234 is a British invention, just as they did 12 years ago for the Po-210 poisoning. My opinion on secrecy follows that of Edward Teller (see link at the top of this blog post to Teller's call for less secrecy). We need to declassify what we know about Novichok nerve agent A234, to destroy this propaganda.

Please also see recent comments to this post concerning the need for an urgent effort to stockpile CREDIBLE nuclear deterrents and also civil defense countermeasures against invasions by Russian troops supported by Novichok nerve agent. Waiting for another crisis before acting may be too late.



In 2008, the former USSR chemical warfare scientist Dr Vil S. Mirzayanov (born 1935 in Russia) exposed Russian Novichok nerve gas research in his book *State Secrets: An Insider's Chronicle of the Russian Chemical Weapons Program*. The continuing denial by Russia is proof that they are being as dishonest about Novichok as they were about Russian missiles in Cuba in October 1962, when Kennedy had to declassify and publish on TV top secret photos of missiles taken from a U2 spy plane. The West needs to declassify the truth to debunk enemy obfuscation and propaganda.



Dr Vil Mirzayanov - the Russian inventor of Novichok nerve gas, with a publicity poster for his 2008 book which exposed Russian nerve gas warfare work - responding to the 4 March 2018 attack by Russia against the United Kingdom (Credit: Daily Mail.)

Dr Mirzayanov has recently described the horrifying effects of his invention, Novichok:

Vil Mirzayanov described the use of the lethal toxins as a 'brazen' attack by Vladimir Putin, who 'thinks he can use everything to kill enemies'. Mr Mirzayanov says a large dose of Novichok 'paralyses' victims before 'it causes convulsions, you can't breathe and after that you die'. The exiled scientist shocked the world in 1992 when he revealed that promises by the Soviet Union to reduce its chemical weapon stockpiles were hollow. He worked in the top-secret Moscow laboratory where a new generation of even more potent poisons was being perfected. These gruesome chemical weapons, named 'Novichok' after the Russian for 'newcomer', were designed to be even more lethal than VX or sarin. At the time, one former top Soviet military adviser described them as 'political weapons', adding: 'They have a powerful moral and psychological effect.' ...

Speaking from his home in New Jersey last night, Mr Mirzayanov, 83, described the top-secret laboratory as a 'criminal enterprise'.

'It's a brazen attack,' he said. 'Putin thinks he can use everything to kill enemies. They don't tolerate any opponents. They should be punished. It's an open demonstration of this Russian terrorism. The Russian government is telling people who are thinking about revealing more secrets that they can expect the same fate.' Asked how the nerve agent works, he added: 'It's for paralysing people, it causes you convulsions and you can't breathe and after that you die. If you get enough of a dose of it. It's real torture, it's impossible to imagine. Even in low doses the pain can go on for weeks. You cannot imagine the horror, it's so bad.'

The Novichok family of nerve agents were secretly developed over two decades at a research facility 50 miles outside the Russian capital. ...

Describing his work, Mr Mirzayanov said: 'They were normal laboratories, they were not underground or anything. They were testing and developing. There were around 1,000 people working on this, it was a big deal. You have to test it on animals and after that you have to study the chemical properties... so many laboratories were involved.'

In 1987, one physicist at the laboratory was saved despite being exposed to the chemical when a ventilator stopped working. Witnesses described how he staggered out of the room, describing seeing bright hallucinations before collapsing and being rushed to hospital by the KGB. He was left with permanent injuries after being critically ill for ten days and unable to walk for six months.

- <http://www.dailymail.co.uk/news/article-5492781/Scientist-reveals-horror-lethal-nerve-agent-Novichok.html>



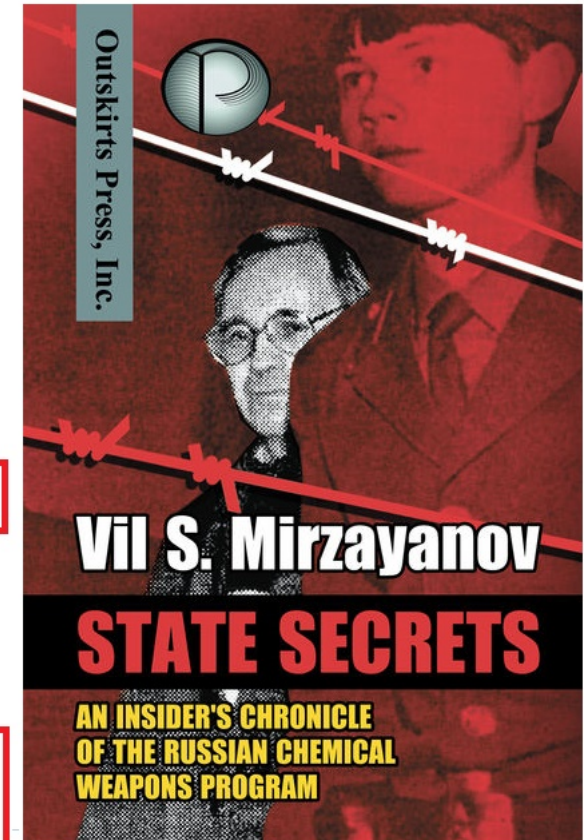
This book, while autobiographical and in many places entirely personal in character, is also a firsthand chronicle about the secrets of chemical weapons development in the Soviet Union and in Russia. I worked as a chemist for more than 26 years in the premier center for the development of chemical agents in the Soviet Union - GOSNIIOKhT (State Scientific Research Institute of Organic Chemistry and Technology), during its major developmental period and the pinnacle of its bloom. As an insider in the military chemical complex, I witnessed and participated actively in the laboratory research, development, testing and mass production of modern Russian chemical weapons. Like hundreds of other scientists, I gave my work my best effort, applying all of my energy and capabilities, in order to make sure that these weapons were powerful and effective.

The ruling Communist elite spared nothing - neither resources nor people - to ensure success for its military chemical complex. In order to maintain the highest level of secrecy, in 1974 the Central Committee of CPSU placed this entire complex with all of its scientists, engineers and workers, entirely beyond the bounds of the laws and regulations existing at that time, pretending that it didn't exist. This deprived everyone working under the regime of any elementary rights to defend their own interests. This was a hypocritical effort to create an image of a USSR which was outside of the chemical arms race. That was allegedly solely the activity of the Western aggressors.

For a long time Russia simply reproduced the chemical weapons of Western countries; however, in the beginning of the 1970s Russian scientist Petr Kirpichev and his team created a new class of chemical agents which are many times more lethal than anything known up to this time. Moreover, the chemical agent known to us as A-232 was not a traditional phosphoorganic nerve agent of known structure. For that purpose, GOSNIIOKhT expressly synthesized a pesticide with an analogous structure. This opened up the possibility of using agricultural chemicals as components of binary weapons. Russia profited from this deception and set traps during the time of negotiations of the Convention on the Prohibition of Chemical Weapons (CWC), especially in connection with the advancement of their binary weapons program. When two relatively harmless components react with each other during the flight of a rocket and produce a deadly chemical agent, the binary weapon eliminates most of the expense and danger of the production and storage of chemical agents. It also makes them extremely difficult to monitor and control.

Even when the CWC was being negotiated, Russia secretly and persistently pressed forward with its program of development and testing of the new class of binary chemical agents under the code name *Novichok*, which means "newcomer" in Russian. According to the Wyoming Accord, both the United States and Russia were required to declare their stores of chemical weapons, but Russia lied about the quantity stockpiled and has never acknowledged the *Novichok* program to this day.

As a scientist and as a human being, I went through a long soul searching process and came to the



**From State Secrets by
Dr Vil S. Mirzayanov, 2008**

Above: In his 2008 book about Novichok, Dr Mirzayanov discredits the so-called Convention on the Prohibition of Chemical Weapons (CWC) as being a deliberately loop-hole filled Russian negotiated front to allow Russia to build up a clandestine stockpile of nerve gas, which Russia lied about. In the book Dr Mirzayanov explains that, after he had disclosed the facts of Novichok to the media in September 1992, *the successor to the KGB arrested him for "disclosing state secrets", hardly an action they would take if Russia's stockpile of illegal Novichok nerve gas was imaginary or a joke.*

He was sent to Matrosskaya Tishina maximum security prison as punishment. He states in the book that the Russians attached sixty "secret and top secret" Russian government reports on Novichok to his indictment, which he was able to: **"copy out legally during my study of the case materials ... 51 of them are attached to this book in the Annexes. From these documents, it is possible to get some idea of how the *Novichok* program ... was going on in the Soviet Union, then in Russia."**

So there are actual secret and top secret classified Russian documents on Novichok that discredit Russian denials as complete lies. Dr Mirzayanov also explains in his 2008 book that the chemical arms control delusions have failed with Novichok: "After his nomination for the Nobel Peace Prize and Russia's signing of the Agreement on the Nonproduction and Elimination of Chemical Weapons (CWC) on September 23, 1989, by Edward Shevardnadze, Mikhail Gorbachev ... signed Resolution no 844-186 of the Central Committee of CPSU and Council of Ministers on October 6, 1989, sanctioning the start up of the binary [Novichok nerve gas] weapons program. Already a Nobel Peace Prize laureate, Gorbachev on April 23, 1991 awarded the Lenin Prize to the leaders of the Military Chemical Complex for the successful development, testing and production of these arms. Despite the fall of the Communist regime, the *Novichok* program continued ..."

Update, 28 March 2018: Novichok was sprayed on the front door of Sergei Skripal's house

"The former Russian spy *Sergei Skripal* and his daughter are believed to have been poisoned by a military-grade nerve agent at their home, police said. Detectives identified the highest concentration of the novichok nerve agent on the front door of their address in Christie Miller Road, in *Salisbury*. Mr Skripal and his daughter, Yulia, remain in critical condition in hospital. The Metropolitan Police said traces of the nerve agent have been found at some of the other scenes detectives have been working at over the past few weeks, but at lower concentrations. ... Deputy Assistant Commissioner Dean Haydon, Senior National Coordinator for Counter Terrorism Policing said: "At this point in our investigation, we believe the Skripals first came into contact with the nerve agent from their front door." ... It comes after *Russia*, which has faced increasing global isolation after being held responsible for the attack, suggested UK intelligence officers may have been involved in the poisoning of Mr Skripal and his daughter, Yulia. The Kremlin made the allegation after at least 26 countries expelled a total of more than 130 suspected spies in response. Britain insists there is no other plausible explanation for the *novichok* attack and has dismissed a series of suggestions emanating from Moscow as nonsense. "

- <https://www.independent.co.uk/news/uk/crime/sergei-skripal-salisbury-poison-nerve-agent-russia-daughter-attack-novichok-front-door-home-a8278631.html>

In the introduction to his 2008 book about Russia's illegal and covert Novichok nerve gas program, *State Secrets*, Dr Vil Mirayanov writes:

"Even though the concept of Democracy was beginning to catch on fire in Russia, nothing was fundamentally changing. I became involved with the Democratic Movement at my institute, and tried to persuade people to stop producing chemical agents, and I appealed to Moscow's Mayor Gravril Popov, but there were no results. Reluctantly at first, then more resolutely, I became a whistleblower. ... If I hadn't spoken up, who would have? Probably no one in the rest of the world would have known about Novichok.

"I appealed to the world community to pay attention to this problem in my first article published in the Moscow newspaper *Kuranty* in 1991, but there was no reaction. Then two more articles appeared in the September of 1992 issues of *Moscow News* and *The Baltimore Sun*, which resulted in my arrest for 'divulging state secrets'. This was the beginning of my persecution ... Despite my revelations and the ratification of the CWC [Chemical Weapons Convention] by Russia, the *Novichok* program was not put under international control and ... the binary components [which when mixed together produce the nerve agent] are not on the list of controlled compounds of CWC. This is very troubling because there are no guarantees that Russia isn't continuing such secret programs. These are all extremely compelling reasons for amending the CWC to include these chemicals, but nothing has been done about it. I am sure I am not the only person who has noticed that these loopholes that were written into the CWC could very well have been built in intentionally."

What Dr Mirayanov is saying is plain truth about the old Stalinist trick of pushing for arms control agreements that contain loopholes; if they succeed and get the useless piece of paper, then go ahead and violate the spirit of the agreement. On the other hand, if other nations refuse to agree to a useless (misleading) arms control agreement that contains loopholes, then they put on a grand show of denouncing the rest of the world as warmongers who don't want arms control and then go on building their stockpile up. Either way, the result is much the same. Stalin began this in 1946 by vetoing the Baruch Plan for postwar nuclear arms control (which contained good verification procedures) and proposing instead a rival scheme, which left out the careful inspections and so would not stop Russia secretly producing nuclear weapons! The problem in 1946 was that it was just a decade since Hitler had violated German arms control laws, so nobody was being fooled by signatures on papers that were not backed up by proper inspections.

As Herman Kahn points out lucidly in *On Thermonuclear War*, Khrushchev did the same in the 1950s, long before the Cuban Missile Crisis, he claimed that anybody violating a test ban treaty (by detonating a bomb in a large underground cavity or cave, to decouple the seismic signal) would "cover themselves in shame". He didn't exactly cover himself in shame in October 1962 when he lied about the presence of Russian nuclear missiles in Cuba, forcing Kennedy to publish the top secret U2 spy plane photos on TV to convince the public of which side of the story was the truth. The point is, yet again, that laws don't work anywhere: people break them, countries break them when their leaders are powerful enough to do so. The pieces of paper signed by Hitler in 1938 guaranteed no WWII. They were illusions. All that really counts is enforcement, and that will always risk confrontations and violence.

Update: Easter Sunday 1 April 2018, recent UK newspaper clippings highlights

Easter 2018 news of President Putin's latest 200 tons Satan 2 Sarmat missile, which can take 12 warheads 6,000 miles with up to 20 times the speed of sound:

DAILY EXPRESS
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PIPPA'S FATHER-IN-LAW QUIZZED OVER CHILD RAPE CLAIM
 SEE PAGE 7 

PIPPA and David Matthews at her wedding

PUTIN'S EASTER MISSILE THREAT
 By **John Chapman** and **Will Stewart**
VLADIMIR Putin's war of words with the West escalated into war games yesterday.
 In a show of force, the Russian president demonstrated his fearsome new Sarmat missile.
 Dubbed Satan 2 by Nato, it can travel at 20 times the speed of sound and carry 12 nuclear warheads up 

Vladimir Putin's fearsome 'hypersonic' missile is tested yesterday

Fury as evil ISIS Britons moan: We won't get a fair trial 



Daily Express Saturday 31 March 2018 front page on Russian President Putin's new Satan 2 missile test at Easter 2018. Putin seems to be deliberately accompanying his military build up with provocative acts of defiance at the West, such as escalating the Novichok nerve gas attack by retaliatory steps against token spy expulsions.

It appears that he is determined to be seen as a new man of steel, a replacement Stalin perhaps.





The Sun 21 February 2018 exposes Jeremy Corbyn threat to suppress freedom of the press to ask questions, after he was exposed for associating with a Czech communist friendly to Jew hating terrorist groups Hamas, Hezbollah, and even opposed bombing ISIS). As a result, the present UK Government has no effective opposition on d account. We are impartial, and do believe that while the current UK Conservative Government has more moderate leadership at present than Labour, nevertheless it challenge from an opposition. Corbyn is a danger because he fails to provide this, and is currently obsessed with CND style disarmament propaganda from the Cold W was basically a front for Russian aggression. He is engaging in double-talk over fascist Jew haters in his party.



The Sun 21 February 2018 Jeremy Corbyn and communist spy facts he refuses to discuss: the problem is that when faced with criticism, Corbyn starts behaving like opposition. How much paranoia and abuse of power would his bizarre behaviour lead to in power?



By **Alison Little**
Deputy Political Editor

LABOUR grandees yesterday piled pressure on Jeremy Corbyn by questioning his commitment to tackling anti-Semitism in the party.

Lord Winston said he did not think that he was anti-Semitic but the Labour leader did not seem to grasp the impact of his failure to fight a "virus" of hate.

"Whether he likes it or not, Jeremy Corbyn has a lot to answer for. He has encouraged anti-Semites and he's endorsed them," said the peer and fertility expert.

Meanwhile, an open letter signed by 39 Labour MPs and peers called for Christine Shawcroft, the hard-left Momentum group director at the heart of the latest row, to be suspended from Labour's ruling National Executive Committee.

She quit as chair of the disputes panel after questioning the suspension of a local election candidate who posted Holocaust-denying material.

Ms Shawcroft says she voiced support before seeing the "abhorrent" post.

Mess

The leadership says it cannot sack her from the NEC because she was elected by party members. Labour former Home Secretary Lord Blunkett said ideally she would be suspended but Corbyn supporters had such "unbridled power" they were powerless to act.

Lord Blunkett added: "When people vote in the election for NEC members this summer, I hope they will stop just ticking a box sent out by Momentum and think for themselves and put people on the NEC who will sort this mess out."

Defiant Ms Shawcroft said on Facebook she did not support Holocaust-deniers, claiming: "This whole row is being stirred up to attack Jeremy. That someone who has spent his whole life fighting racism... should find himself being accused of not doing enough to counter it, absolutely beggars belief."

But Karen Pollock, of the Holocaust Educational Trust, tweeted that it was "disgusting" that Ms Shawcroft had implied enough was being done to combat anti-Semitism.

Ms Shawcroft's words undermined Mr Corbyn's Passover message in which he admitted Labour must "do better", not-

Pictures: STEVE PARSONS/PA

A runner stops off for the chance of a selfie with the Prime Minister



Selfies with PM as hi-vis Theresa marshals fun run



THERESA May donned hi-vis gear yesterday as she marshalled a 10-mile fun run.

The Prime Minister helped direct runners during the annual event in her Maidenhead constituency.

Standing alongside husband Philip, the Prime Minister offered help and encouragement to participants and then gave out medals. And she happily posed for photographs with members of the public and runners.

Mrs May attended the event before she headed off to Wales for a walking holiday.

Downing Street dismissed claims she may call another general election after last year deciding to hold the vote while on

Pressure... Jeremy Corbyn



Daily Express Saturday 31 March 2018 page 2, exposing how zealot fascism of Jew haters in Labour thrives under the leadership of Jeremy Corbyn's duplicity. Corbyn's personal friend, former London Mayor "Red" Ken Livingstone, a staunch Marxist proponent of the USSR in the 1970s, 1980s, and 1990s, sparked off the Labour fascist anti-Semitic fury by declaring that Hitler was a Jew supporting Zionist who backed the creation of the state of Israel "before he went a bit mad." Sensible folk think that Livingstone and his friends, like Corbyn, are more than a "bit" mad themselves. Labour peer, surgeon Lord Winston states (*Daily Express*, 31 March 2018, page 2):

"Whether he likes it or not, Jeremy Corbyn has a lot to answer for. He has encouraged anti-Semites and he's endorsed them."

The same article reports that 39 Labour MPs have signed a letter calling for hard-left Momentum group (Corbyn's effective brownshirts) director to be suspended from Labour's National Executive Committee, because she defended a Holocaust denier who was a candidate (she later claimed she did not know he was a Holocaust denier, despite defending him after he was suspended for that). Last night (31 March 2018), she resigned instead of being fired by Corbyn, who has the temerity to continue claiming to be both a pacifist and an anti-racist! Imagine how these hypocrites would behave if given state power in Britain to bring about Nazi like National Socialism, defending Holocaust deniers. In such a situation, rather than allowing defenders of Holocaust deniers to resign and not be fired, they would be orchestrating state actions against "Jews and capitalists" whose taxes ironically provide key funding to support the regime. The problem here is that Britain is now very much in the position of Germany circa 1930 or Russia circa 1917. The "left" are being supported by fascist type National Socialists of communist persuasion, who love the fact that Russia hasn't really changed that much since the Cold War, and want it here. Miss Shawcroft and the BBC naturally claim that the hatred of Jews by Corbyn's pal Livingstone and his followers is being exaggerated by the media: the old "shoot the messenger" tactic:

"This whole row is being stirred up to attack Jeremy. That someone who has spent his whole life fighting racism [rather, defending racist terrorists who are fighting Jews and stirring up "divide and rule" racism, is the truth] ... should find himself being accused of not doing enough to counter it, absolutely beggars belief" (so said Momentum's director Christine Shawcroft a few hours before being allowed to resign by Corbyn).



Another newspaper, *Daily Mail* 27 March 2018, with the headline "Labour's a refuge for racists", also exposing demonstrations against Labour Party Leader Jeremy Corbyn's fanatical racism: "Corbyn dubbed 'poster boy of anti-Semites' by one of his MPs."



the Battersea Dogs & Cats Home that the moggy would need its own room:

secure, comfortable spare room of their own.' That's a new one on me. Our

loved his own bedroom. But since when have cats needed their

Top Cat, wasn't so fussy. He lived in a dustbin.

ELEVEN years ago, I wrote a Saturday essay in this newspaper exposing a virulent new strain of anti-Semitism. It was based on what I had discovered while making a documentary for Channel 4, called *The War On Britain's Jews?*

My thesis was that while the far-Right hadn't gone away, most of the hostility towards the Jewish community was coming from an unholy alliance between those I dubbed the Fascist Left and Islamist fanatics.

I've returned to the subject occasionally over the past decade, as anti-Semitism has seeped from the political fringe to the poisoned heart of the Labour Party.

Back in 2007, despite the weight of conclusive evidence, it was difficult to get many people even to admit publicly that there might be a problem.

Though I received help from the Community Security Trust, a charity which provides protection for the Jewish community, there was a reluctance among prominent members of what we might call the Jewish establishment to take part in the programme.

Not that they were unsympathetic, just that they were understandably wary of making too much of a fuss, or blowing the issue out of proportion.

That's what is so significant about last night's unprecedented demonstration in Parliament Square, involving the Board of Deputies of British Jews and the Jewish Leadership Council.

Ever since Jeremy Corbyn became Labour leader, anti-Semitism has gone mainstream. It can no longer be overlooked or played down.

The charge sheet was laid out in this newspaper yesterday, culminating in the latest revelation that Corbyn himself had defended a deeply offensive mural in East London, which depicted a gaggle of Jewish financiers playing Monopoly on the backs of naked black slaves.

Corbyn now says he 'regrets' supportive comments he made about the mural, but can't bring himself to offer a full apology — merely acknowledging there are 'pockets of anti-Semitism that exist in and around the party'.

Even though he has said 'sorry', it's meaningless. Though he may consider himself not guilty of anti-Semitism, he promotes a world-view which traduces Jews, both in this country and around the globe.

Every time a fresh expression of anti-Jewish sentiment by a Labour

□ A SIX-MAN moped gang held up traffic on Putney Bridge, in South-West London, while they tried to steal a £250,000 camera erected by the BBC to film the Boat Race. They left empty-handed after being confronted by an off-duty

activist is exposed, Corbyn wriggles and dissembles. The lame excuse about being anti-Zionist and opposed to the policies of the government of Israel, not anti-Jewish, simply won't wash any more.

Corbyn is typical of those on the Left who have convinced themselves that because they are the repositories of all goodness they can't possibly be accused of harbouring any kind of prejudice.

But they should be judged by their actions, their words and deeds, not their self-serving propa-

ganda. And the reality is that Jew-baiting still doesn't constitute a hanging offence in today's 'anti-racist' Labour Party.

Naz Shah, Labour MP for Bradford West, was quickly reinstated after a brief suspension from the party for suggesting that Israel should be relocated to America.

Serial offender Ken Livingstone, the former Mayor of London who once compared a Jewish reporter to a concentration camp guard, remains a party member.

In a strongly worded letter,

The real fascists today are on the Left

Jewish leaders say: 'Again and again, Jeremy Corbyn has sided with anti-Semites rather than Jews. At best this derives from the far-Left's obsessive hatred of Zionism, Zionists and Israel.'

'At worst, it suggests a conspiratorial world-view in which mainstream Jewish communities are believed to be a hostile entity, a class enemy.'

Plenty of Jews oppose the policies of the Israeli government. But, unlike Corbyn, they don't back Hamas and Hezbollah who are dedicated to wiping Israel off the face of the earth.

How the hell does Corbyn think his support for his terrorist 'friends' is going to play with the Jewish community in Britain, many of whom have family living in Israel and take holidays there?

It was bad enough when this kind of bigotry was confined to the outer limits of agitprop politics

But what's horrifying is embraced by the lead Majesty's Official Opposition someone who might become Prime Minister next General Election.

When small 'c' organisations like the Deputies feel they have to take to the streets, you know the problem has a critical level.

My documentary was planned to coincide with the 70th anniversary of the Cable Street, when trades union Labour activists and members of London's Jewish Community combined to stop a march of the East End by Oswald fascist Blackshirts. More years on, the real fascists that are to be found on the Left.

In 2007, there were plenty ready to accuse me of on the question of anti-Semitism convenient stick with which Leftists and Islamists.

Many of them are using argument today, claiming demonstration outside Parliament is just part of a vast, Right and media conspiracy discrediting Corbyn.

MORE than a dozen only a few brave MPs would stand on the subject notably Bassetlaw's John

Today, others are prepared to stand up and be counted, Corbyn to make a proper case over the mural and rid the cancer of anti-Semitism and for all.

But we're talking leap spots here. Corbyn might change his beliefs, nor der terrorist 'friends', nor kick anti-Semites out of the party.

The only good news is that after my documentary, the is at last being taken seriously hope this week marks the end of the hard-Left Britain's Jews.

Daily Mail, 27 March 2018, page 19 "The Real Fascists Today are on the Left": an article again exposing the fanatical racism of Left Wing British Labour Party, which their belief in terrorism by ISIS and other jihadists who attack Jews in Israel, or who deny the Holocaust (or want appeasement, to trigger WWII). But this is not new.

Ukraine and throughout Eastern Europe were terrorised and massacred by USSR backed commies, who used them as scapegoat "capitalists" to rob and vent their hat

Corbyn is siding with the country's enemies - again

WITH the fall of Soviet communism, gone were the days, one might have thought, that a Russian leader could look to the front bench of the British Labour Party for what Stalin would have called a "useful idiot". The country may have ditched the collective ideals of the Soviet era but it has re-established some of the Stalinist terror.

Why then, can't Jeremy Corbyn bring himself to condemn Russia's attempted murder of former double agent Sergei Skripal and his daughter in Salisbury with a nerve agent? And why, disgracefully, does he try to use it as an opportunity to condemn our own government rather than that of Vladimir Putin?

Yesterday, Theresa May's statement made it absolutely clear that the Salisbury attack must have been ordered at the very highest level of the Russian government. The nerve agent employed, Novichok, was developed by the Russian military. It is manufactured in only one place: a state-owned factory in Russia.

As May made clear there are only two possibilities: that Putin, or someone very high up in his administration, is responsible. Or that Russia has lost control of its supplies of the



USEFUL IDIOT: Corbyn refused to condemn Mr Putin

Picture: REUTERS

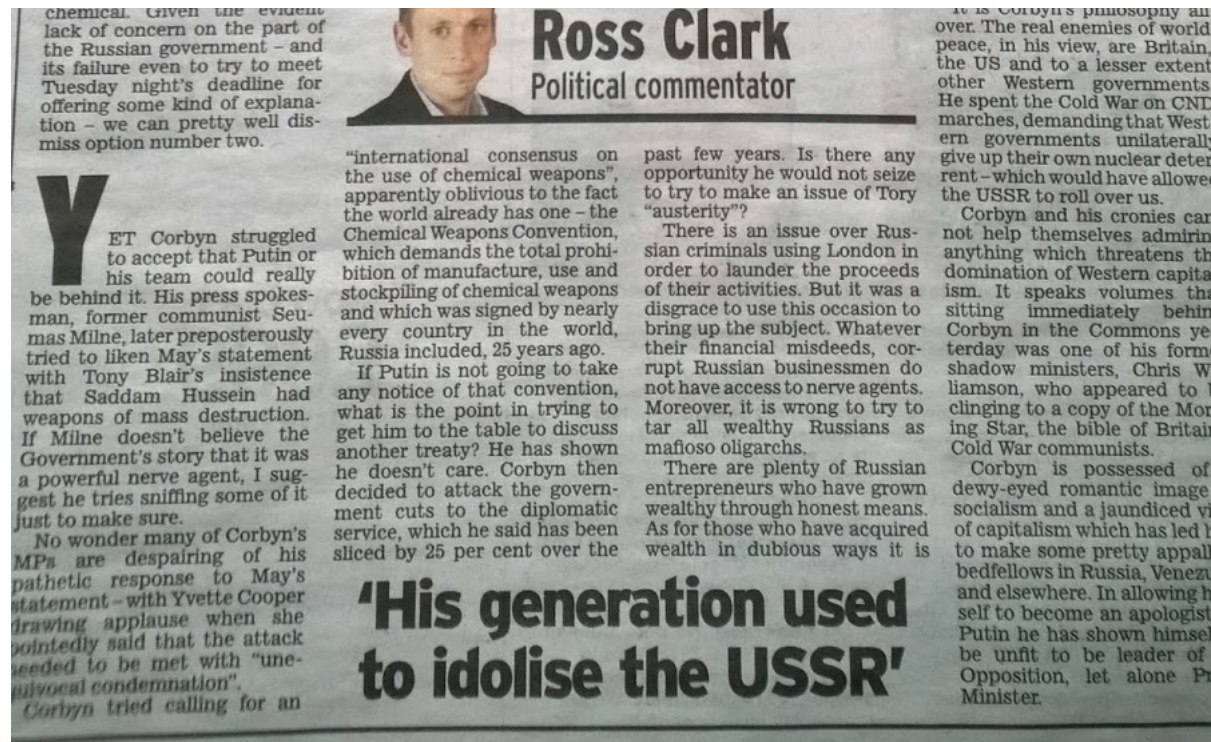
wrong-headed to try to lump them together with Putin. Many wealthy Russians are Putin's enemies. Some have been granted asylum in Britain because their lives are in danger. But Corbyn sees nothing of this - he just wants to attack people for being rich.

Corbyn struggles to condemn Putin because he comes from a generation of the Left which idolised Russia. They spent the Cold War cuddling up to the communist regimes of eastern Europe, denying the misery which lurked within them. When communism fell, they clung to the fantasy that democratic socialism would rise from the ashes.

SEUMAS MILNE has spent much of the past 30 years trying to downplay Stalin's murders, attempting to revise downwards the many millions who perished in the purges and in the famine created by Stalin.

When Putin invaded the Crimea, Milne blamed the West for provoking him by expanding Nato eastwards. In other words, Russia is not and can never be to blame - if Putin has acted aggressively, it is all the West's fault for daring to protect the freedom of Eastern Europe.

It is Corbyn's philosophy...



Daily Express 15 March 2018, page 12, article explaining how Corbyn sides with Putin in new Cold War. Basically, Corbyn believes in "divide and rule": side with the enemies of the country and encourage them to destroy the democratically elected government with nerve gas, cyber attacks or even all out war, then Corbyn can sneak in pretending to be a "pacifist" and "peacemaker". His old 1980s CND tactic, debunked by Frederick Forsyth's novel *The Fourth Protocol* (where Russia tries to a covert attack on Britain in the belief that it can use CND to trigger UK nuclear disarmament and thus allow USSR expansion into Western Europe, with the American's watching their own backs for fear of being attacked if they step in). Corbyn hates NATO, has always opposed it, and automatically seems to love anyone, especially Putin, who confronts Western democracy.



to fight a Cold War

R WHEN I was a teenager I enjoyed long walks with my farmer grandfather through his Shropshire fields. He was an amateur historian of 20th-century politics and I clearly remember the conversation we had about Britain's policy of appeasement towards Germany during the 1930s. He'd lived through that as a young man and a First World War veteran. I asked him why so many people just couldn't see the coming menace of Hitler's Nazis.

"You have to understand, Richard, nobody could bear the idea of another war – including me," he said (he'd lost part of a foot and the hearing in one ear in the trenches in 1917). "We just didn't want to believe it was all going to happen again. We *couldn't* believe it. It was unbearable. So we chose to live in a fool's paradise until it was almost too late."

This week Britain struggled to comprehend the growing threat

the fact that Russia remains a serious, long-term threat to our safety and security is psychologically difficult because we really, *really* don't want to believe it. We're in denial.

Former foreign secretary William Hague addressed the syndrome this week in a series of rhetorical questions. "Can it really be true that the Russians are equipping themselves to snap the undersea Atlantic cables on which all our communications and finances depend? Afraid so. Are they actually positioning themselves to hack into our vital national infrastructure and disrupt it? Looks like it. Can they possibly maintain Soviet levels of espionage and covert activity in our free European societies? You bet they can. Are they flying aggressive sorties to test our air defences? Yup. Surely they're not developing new chemical weapons and deadly poisons as well? Of course they are."

FROM VLADIMIR PUTIN'S RUSSIA.
Threat? What threat? We won the Cold War, didn't we? (Just as my grandfather's generation won the Great War.) All that confrontation is behind us, we're free of it now, surely?
No we're not. And facing up to

we must find the courage and the will to face down Russia's unacceptable behaviour and "open the eyes of those who do not wish to see".
Which – let's be honest, here – may mean opening our own eyes too.

Daily Express 17 March 2018, page 22: journalist Richard Madeley explains how the world is in denial of the new Cold War, a fact that bigoted pseudo-pacifists love to ignore.

Daily Mail, Tuesday, March 27, 2018

By Jason Groves
Political Editor

VLADIMIR Putin was on the back foot last night after the West expelled more than 100 Russian spies in a show of support for Britain.
In an unprecedented diplomatic rebuke to Moscow, 22 countries said they would be joining the UK in expelling Russian agents in retaliation for the Salisbury attack.
The extraordinary Western response is a coup for Theresa May, who has spent days warning allies that they could face similar Russian aggression if they stand by.
The Prime Minister told MPs: 'This is the largest collective expulsion of Russian intelligence officers in history. If the Kremlin's goal is to intimidate and divide the Western alliance then their efforts have spectacularly backfired.
'Today's actions by our allies clearly demonstrate that we all stand shoulder to shoulder in sending the strongest signal to the Kremlin that Russia cannot continue to flout international law and threaten our security.'
The United States led the way with the expulsions, announcing that 60 Russian 'diplomats' would be booted out. The White House last night said the decision showed Britain and the US were 'joined at the hip' in their response to Russian aggression.
Sixteen EU countries said they would also be expelling Russian agents, with at least two more expected to follow in the coming days. The show of strength came as:
■ The Prime Minister revealed that more than 130 people in Salisbury may have been exposed to the Novichok nerve agent;
■ The Kremlin warned the world was entering a new Cold War as it hit out at those trying to 'contain Russia';
■ Mrs May told MPs that former spy Sergei Skripal and his daughter Yulia remain critically ill. She added: 'Doctors indicated that their condition is unlikely to change in the near future, and they may never recover fully.'
Yesterday's wave of expulsions followed a diplomatic push by Mrs May, Foreign Secre-

'Acts of aggression'

DAY THE WORLD TURNED ON PUTIN

Triumph for Mrs May as 22 nations unite to kick out more than 100 Russian diplomats



Backlash grows: Vladimir Putin yesterday

tary Boris Johnson and senior figures in the security services, who have shared intelligence with allies on the Russian threat.

The UK has already expelled 23 suspected Russian spies in a bid to 'dismantle' the Kremlin's espionage network in this country. Russia replied by doing the same, closing a consulate and banning the work of the British Council.

Mrs May warned EU leaders last week that their own countries were 'at risk' unless they joined the UK in taking a strong stand.

She was rewarded yesterday when France, Germany, Poland, Denmark, Lithuania, Italy, the Czech Republic, the Netherlands, Spain, Estonia, Croatia, Finland, Latvia, Romania, Sweden and Hungary all announced they would be expelling Russian diplomats in response to the Salisbury attack.

Ireland and Belgium are expected to follow suit in the coming days. Non-EU countries responding to the UK's call included the US, Canada, Ukraine, Albania and Norway.

European Council president Donald Tusk said 'additional measures' could not be excluded 'in the coming days and weeks'.

Six countries are also planning state boycotts of the World Cup in Russia, it was claimed last night. Poland, Iceland, Denmark, Sweden, Australia and Japan have all said their officials will not attend - with more expected to follow, The Sun reported.

Danish prime minister Lars Lokke Rasmussen said: 'Russia has gone too far. An assass

COUNTRIES THAT HAVE EXPELLED PUTIN ENVOYS

| | | | | |
|--------------------------|-------------|------------------|-----------|-----------|
| EU - Recalled ambassador | Canada 4 | Czech Republic 3 | Holland 2 | Hungary 1 |
| United States 60 | France 4 | Albania 2 | Spain 2 | Latvia 1 |
| UK 23 | Germany 4 | Denmark 2 | Croatia 1 | Norway 1 |
| Ukraine 13 | Poland 4 | Estonia 1 | Romania 1 | |
| | Lithuania 3 | Italy 2 | Finland 1 | Sweden 1 |

Labour MP accuses Corbyn of lies over attitude to

By Political Editor

Commons deputy speaker Eleanor Laing. The row erupted after Mr Corbyn told MPs he had criticised Moscow in the past over issues such as gay rights and Chechnya, adding: 'I have been a robust critic of the actions of the Russian government for more than 20 years.'

The claim sparked an outbreak of mocking laughter from Tory MPs. And it prompted an angry intervention from Mr Woodcock, who told his leader: 'I cannot let that remark go by.'

He added: 'I have sat here reading his article in the Morning Star after Russia annexed part of the Ukraine, where the strongest criticism he makes is "On Ukraine I would not condone Russian behaviour, but it is not unprovoked..." and then into the usual criticism of the US and Nato and UK policy. It is just not true.'

In a sarcastic reply, Mr Corbyn told his colleague: 'Thank you very much.'

The Labour leader has faced intense criticism from all sides for his refusal to accept British intelligence linking the Kremlin to the Salisbury attack on former spy Sergei Skripal and his daughter Yulia. Yesterday he tried to soften his stance, saying now accepted that the attack involved a nerve agent 'of a type manufactured by Russia', and he acknowledged that Moscow had failed to offer a 'plausible explanation' for how the Novichok agent came to be used.

But he stopped short of blaming the Russian state for direct responsibility, saying: 'There is clear evidence that the Russian state has a case to answer and that they've

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But he stopped short of blaming the Russian state for direct responsibility, saying: 'There is clear evidence that the Russian state has a case to answer and that they've

Daily Mail 27 March 2018, pages 8 and 9: "Labour MP accuses Corbyn of lies over attitude to Moscow". Jeremy Corbyn has now actually been accused of lying about Woodcock, a Labour MP. This is a far cry from Labour's 1945 elected Prime Minister Clement Attlee, who ordered the building of the first British nuclear weapon in Europe, and also re-started the Civil Defence Corp under the 1948 Civil Defence Act, to ensure proper sheltering against widespread collateral damage from blast and rationing after WWII in an austerity drive to help fund the NHS, instead of borrowing money the country to add irresponsibly to the national debt. Therefore, Corbyn is just wants to vandalise democracy, security, freedom, and progressive liberal values with Marxism.



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The *REAL* reason so many women have lost their sex drive **GOOD HEALTH STARTS PAGE 36**

CHANGE YOUR SAVINGS MONEY MAIL PULLOUT CENTRE PAGES



Day British Jews goaded beyond endurance by the rise of anti-Semitism in Labour descended on Parliament to cry...

HOW I SEE IT
by Robert Hardman

ENOUGH IS



Daily Mail 27 March 2018 page 1 exposing demonstrations by Jews against persecution by the hard left wing racism of Labour Party Leader Jeremy Corbyn, his friends and his supporters.



anti-Semitism, I would have thought them mad.

We – all of us, Jews, Christians, Muslims, Hindus, atheists and everyone – live in a country renowned for our values and willingness to fight for those values. Our parliamentary democracy has always banished extremism to the fringes. And Britain's Jewish community has long been grateful to live in such a country. At the end of every Sabbath synagogue service we say a prayer to protect the Queen.

But the election of Jeremy Corbyn as Labour leader in the summer of 2015 changed all of that. For the first time a mainstream party was led by someone from its fringes. And now, more than two and a half years later, Labour is firmly in the grip of the hard-Left with revolutionary socialists in charge of its National Executive Committee, Leader's office and ever growing numbers of constituency parties.

The Jewish community is frightened. Frightened of a leader who, as the open letter sent to Mr Corbyn at the weekend by the Board of Deputies put it, "issues empty statements about opposing anti-Semitism but does nothing to understand or address it" and who is "ideologically fixed within a far-Left worldview that is instinctively hostile to mainstream Jewish communities".

MR CORBYN has, they suggested, a "conspiratorial worldview in which mainstream Jewish communities are believed to be a hostile entity, a class enemy". This is extraordinary stuff. Extraordinary but true, which explains why Jews are so angry and worried about him and his henchmen.

But it is not just Jews who should be worried. Gratifyingly there were many non-Jews at Monday's protest because they too could see that how a nation treats its ethnic minorities is an indication of the path on which it is headed.

And with Labour indulging its anti-Semites that would be a very dangerous path should



PROTEST: Jews and non-Jews joined the demonstration at Westminster on Monday

Picture: PA



Stephen Pollard Editor of the Jewish Chronicle

the party win power. Yes, in response to the protest, Jeremy Corbyn said that he was a "militant opponent of anti-Semitism" and an "ally" in the fight against anti-Semitism.

But the only sensible reaction to this is hollow laughter. The idea that the words mean anything is ludicrous. Throughout his entire career Mr Corbyn has allied with anti-Semites.

He embraces the terror organisation Hamas, which is committed to finishing Hitler's work and wiping every Jew off the planet. He invites Muslim cleric Raed Salah – who says that Jews kill Christian children to drink their blood – to tea at the House of Commons. And – the story that burst the dam at the weekend and led to the protest in Parliament Square – he endorses a virulently anti-Semitic mural.

He cannot change his worldview. His defence of anti-Semites goes hand in hand with his hard-Left ideology. He is what he is.

That is why the real story here is not about Mr Corbyn. It

is about the moderates in the Labour Party: the decent, normal MPs and members who are sickened by their leader.

There are many of them – some, like Ian Austin, Pat McFadden, Liz Kendall and John Woodcock – always stand up to Mr Corbyn and say what is right. But however much they say and do that, they must still confront an appalling fact: by remaining in the Labour Party they are enabling him and his supporters.

At the last election it was possible for them to say that since there was no realistic chance of Mr Corbyn winning, they could campaign for Labour in good conscience. That option is no longer there. It is possible that Labour will win the next election. Merely by continuing to be Labour MPs they are helping work towards Mr Corbyn's arrival in Downing Street.

Yet they know how dangerous this would be to the country (and I've not even mentioned national security and his behaviour over the Russian

chemical attack in Salisbury). We keep being told about supposed "game changing" moments after which the moderates will rise up and say enough is enough – which is what we heard on Monday night. But it never happens.

AFTER Ken Livingstone's disgusting comments about Jews allying with Hitler, for example, moderates said that he had to be expelled... or else. That was two years ago. Last April Labour's deputy leader Tom Watson said he was "ashamed" Mr Livingstone was still a member. He still is.

Nothing changes and nothing will change because Mr Corbyn cannot change and the moderates refuse to confront the reality that their very presence in the party allows it to go on.

There is only one solution to this, which is for the decent forces within the Parliamentary Labour Party to resign the Labour whip and sit as independent Labour MPs, with a view to forming a new party. Only then will they be able to remain true to their principles.

This will not be easy. Many will be committing career suicide. But they entered politics for public service and the greatest service they can do for the public now is to do everything in their power to torpedo Labour's hard-Left leadership.

Decent people as they are, the longer they stay the more they become the real problem.

'Jewish community is so frightened'

Daily Express 28 March 2018 on page 12 calls for moderates in the Labour Party to stand up the racist leadership of Mr Corbyn: "Merely by continuing to be Labour MPs they are helping work towards Mr Corbyn's arrival in Downing Street. Yet they know how dangerous this would be to the country ..."

4

Daily Express Wednesday March 28 2018

Corbyn was shown proof of spy attack

By **John Ingham** Defence Editor

JEREMY Corbyn's refusal to condemn
Russia for the nerve agent attack in

Salisbury came despite seeing the same intelligence that led to the mass expulsion of Russian diplomats worldwide, it emerged yesterday.

As Leader of the Opposition he was given a Privy Councillor's briefing on the evidence linking the Kremlin to the attempted murder of double agent Sergei Skripal and his daughter Yulia in Salisbury on March 4.

Daily Express 28 March 2018 page 4 exposed the fact that Labour Leader Corbyn was shown the facts about Novichok but he shamefully ignored them (just as he does when we write to him about the effects of nuclear weapons, the facts debunking the CND agenda as a warmongering pseudo-pacifism which would return the world to the war days of 1914 and 1939), and defended President Putin instead of Britain.

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COMMIE'S MONTHLY JEZ CO

MEET SPY? I'LL I

TO CZECH MY D



Celebration . . Stringer

MP bash for Reds

A LABOUR MP hosted a party in Manchester to celebrate the 35th anniversary of East Germany — paid for by the Communists.

Graham Stringer organised the bash honouring the German Democratic Republic in 1984 — when he was a lefty councillor in Manchester.

Records show the Soviet-backed GDR regime paid for “a string quartet, an organist, a gymnasts’ group and a folklore group” to fly in.

Mr Stringer said: “There was no endorsement of the Soviet Union of Gorbachev.”

CZECH spies were keen to meet Jeremy Corbyn once a month, according to unearthed records.

Security officer Lt Jan Dymic told his bosses in November 1987 that contact with the hard-left Labour MP should be regularly maintained.

He wrote of Mr Corbyn in archived files discovered in Prague: “Meetings should be arranged on a monthly basis.”

Records show the pair met for the last time in September 1988, a few months before Dymic was expelled from the UK for

EXCLUSIVE by JAKE RYAN and CHRIS POLLARD, in Prague

spying. He advised his successor to continue seeing Mr Corbyn, who had an “active supply of information on British intelligence services”.

The Labour leader has said he did not give away any “privileged information” and believed Lt Dymic was a diplomat.

But archives boss Svetlana Ptacknikova said: “There were at least four meetings. He certainly has some questions to answer about this. Mr Corbyn was certainly a person of interest

to the Czech secret service, and a known Marxist.”

Files report Mr Corbyn discussed people linked to “anti-communist agencies” — believed to be MI5 and MI6 — and warned Soviet-backed agents of British intelligence actions.

BBC reporter Steph McGovern yesterday asked him: “Are you a Czech spy?” Corbyn replied: “No.”

Lt Dymic claimed Mr Corbyn, shadow chancellor John McDonnell and former London mayor Ken Livingstone provided information to Soviet-backed agents for cash. All vehemently deny it.

Experts claim other documents may have been destroyed when the Soviet Union collapsed in 1990.

Claims . . . Corbyn

jake.ryan@the-sun.co.uk



Communist Cold War Czech spy Lt Jan Dymic met Britain's current Labour Leader at least four times in the last Cold War, according to the archivist Svetlana Ptacknikova, 2018, page 21.



Daily Mail 2 March 2018 page 1, exposing an apartheid racist friend of the Corbyn's deputy Tom Watson, proving that it is not just Corbyn's own "pockets of racism" (Corbyn's term) within the Labour Party, but the pockets of his deputy too. The party is riddled with racism under the leadership of CND supporting, ranting pseudo-pacifist Corbyn.



reassure Jewish community leaders that he was their eternal ally in the fight against racism as he admitted the party had too often dismissed concerns.

But his latest statement failed to head off a demonstration by hundreds of protesters in Parliament Square, declaring that "enough is enough" and demanding more action from him.

Supporters of the Board Of Deputies Of British Jews and the Jewish Leadership Council (JLC) were joined by several Labour MPs and also Tories, including Communities Secretary of State Sajid Javid.

Labour MP Luciana Berger, chair of the Jewish Labour Movement, told the crowd: "Anti-Semitism is very real and it's alive in the Labour Party."

Tolerated

Some protesters called on Mr Corbyn to quit as Board of Deputies president Jonathan Arkush said it was time for the hard-Left leader to "finally, finally take some responsibility".

The latest accusations that Mr Corbyn has tolerated growing anti-Semitism erupted over his Facebook post in 2012 sympathising with a street artist whose mural of caricatured Jewish businessmen counting money on the backs of slave-like figures was being destroyed in response to complaints it was anti-Semitic.

Mr Corbyn's office initially said his concern had been about free speech but he has subsequently regretted not looking more closely at the "deeply disturbing and anti-Semitic" image.

In his letter to the Board Of Deputies and the JLC yesterday, Mr Corbyn said: "I recognise anti-Semitism has surfaced within the Labour Party, and has too often been dismissed as simply a matter of a few bad apples. This has



Protesters make their point during yesterday's demonstration in Parliament Square

caused pain and hurt to Jewish members of our party and to the wider Jewish community in Britain.

"I am sincerely sorry for the pain which has been caused and pledge to redouble my efforts to bring this anxiety to an end. In this fight, I am your ally and always will be."

Earlier, Labour MP John Mann, the non-Jewish chairman of Parliament's All Party Group Against Anti-Semitism, urged Mr Corbyn to "take a lead" and expel anti-Semites or "rue the day".

But the pro-Corbyn group Jewish Voice For Labour said Mr Corbyn's letter

Labour staged a counter-demonstration outside Parliament. It said the Board Of Deputies "do not represent the great majority of Jewish people in the party who share Jeremy Corbyn's commitment for social justice and fairness".

Spokeswoman Naomi Widdows said that the "hysterical" anti-Semitism was driven by

to quash pro-Palestinian voices. She said that the Board Of Deputies "are not Labour, they are Tories".

Asked if Mr Corbyn should apologise more clearly for the mural, she said: "If I had to criticise Mr Corbyn it would be that he's far too nice, too apologetic."

"Everybody who supports Palestine is under attack here."

"Jeremy Corbyn should apologise for the mural."

**Under fire...
Mr Corbyn yesterday**



Above: *Daily Express* 27 March 2018 on page 2 reports that Labour MP Luciana Berger, chair of the Jewish Labour Movement, states: "Anti-Semitism is very real and its alive in the Labour Party." The latest outrage is Labour Leader Jeremy Corbyn's Facebook posting showing solidarity with abnormal racists who drew a hate attack painting of Jews. Corbyn later simply claimed he wished he had looked more closely at the racist painting before endorsing it. Now, if I was a lawyer, I'd explain to Corbyn that such excuses of incompetence to cover for racism are not adequate. (You cannot excuse yourself for homicide by saying you simply didn't look closely enough at who you were stabbing with your knife.) The question a court would have to address, is "did you defend racism, yes or no?", not "can you come up with an excuse off the top of your head for defending racism". Put another way, a judge would be happy to listen to claims about mitigating circumstances when deciding what punishment is due (the length of imprisonment or the fine), but that is a completely separate issue from the question of whether someone broke a law. E.g., if you had an eyesight problem or were in a hurry when driving, and consequently kill someone, such an excuse does not refute all responsibility for the terror you caused.

Jewish leaders slam Corbyn 'failure to tackle anti-Semitism'

By **Macer Hall**
Political Editor

BRITISH Jewish leaders last night slated Labour leader Jeremy Corbyn, accusing him of "repeated failure to tackle anti-Semitism".

The Board of Deputies of British Jews and the Jewish Leadership Council, said: "Leaders of British Jewry tell Jeremy Corbyn enough is enough.

"We have had enough of hearing Jeremy Corbyn 'opposes anti-Semitism' whilst the mainstream majority of British Jews, and their concerns, are ignored by him.

"When Jews complain about an obviously anti-Semitic mural in Tower Hamlets in London, Corbyn supports the artist. Hezbollah commits terrorist atrocities against Jews but Corbyn calls them his friends and attends pro-Hezbollah rallies in London. Exactly the same goes for Hamas.

"Raed Salah says Jews kill Christian children to drink their blood. Corbyn opposes his extradition and invites him for tea at the Commons."

Mr Corbyn said last night he was "sincerely sorry" for pain caused by "pockets" of anti-Semitism in Labour.

Labour has suspended several members for alleged anti-Jewish outbursts in recently. Mr Corbyn added he



Attacked... party leader Jeremy Corbyn. Above, MP Luciana Berger, head of Jewish Labour, and



had been wrong to support the painter of the Tower Hamlets anti-Semitic mural in a Facebook post in 2012.

The work, entitled Freedom for Humanity, was scrubbed from a wall after complaints. Mr Corbyn has now called the image "deeply disturbing".

Jewish groups are due to protest against Mr Corbyn outside the Commons tonight.

Mr Corbyn said he would meet

Jewish community leaders, adding: "Labour is an anti-racist party and I condemn anti-Semitism.

"We must stamp this out from our party and movement. We recognise that anti-Semitism has occurred in pockets within the Labour party, causing pain and hurt to our Jewish community in the Labour party and the rest of the country."

Labour deputy leader Tom Watson

called the "horrible, taken down regret and

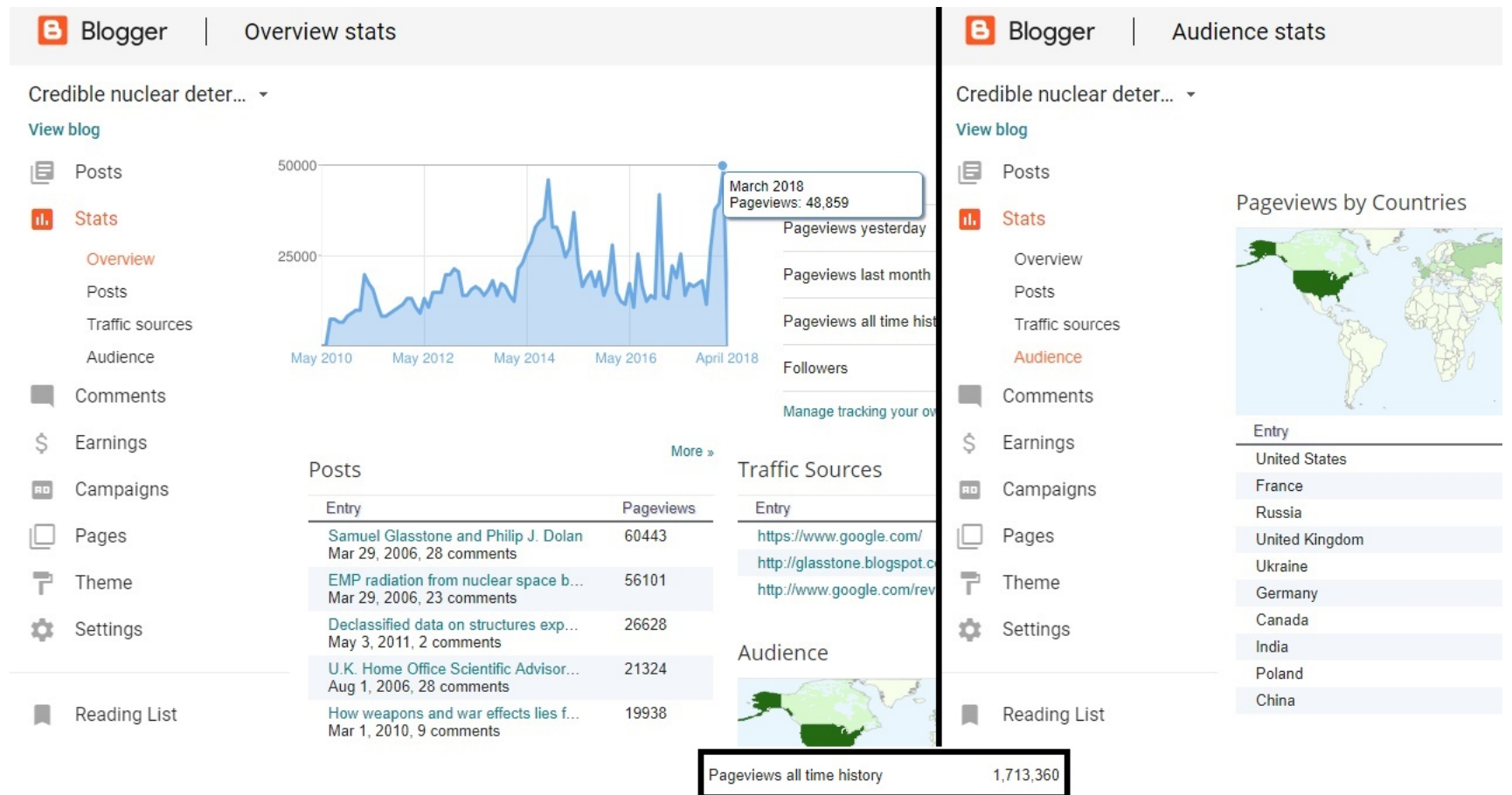
But Labour head of response v failed to anguish fe

OPINION: P

Daily Express 26 March 2018, page 9 publishing a challenge against British Labour Leader Jeremy Corbyn's racism dogma by the Board of Deputies of British Jews and the Jewish Leadership Council, saying: "Leaders of British Jewry tell Jeremy Corbyn enough is enough. We have had enough of hearing Jeremy Corbyn 'opposes anti-Semitism' whilst the mainstream majority of British Jews, and their concerns, are ignored by him. When Jews complain about an obviously anti-Semitic mural in Tower Hamlets in London, Corbyn supports the artist. Hezbollah commits terrorist atrocities against Jews but Corbyn calls them his friends and attends pro-Hezbollah rallies in London. Exactly the same goes for Hamas. Raed Salah says Jews kill Christian children to drink their blood. Corbyn opposes his extradition and invites him for tea at the Commons."

Hate inciting racist Rael Salah *was supported by Corbyn, who opposed his extradition and then invited him for tea at House of Commons*, because it fits into Corbyn's anti-Western agenda of destroying democracy to impose a Marxist state.

To understand this tragic situation of how millions of Britons are now being fooled by fake news into backing someone with similar views to Hitler, let's get back to fundamentals. The USSR-Nazi Pact in August 1939 lasted until June 1941, a grey era in USSR history textbooks since Stalin deleted the facts just as he literally had Trotsky airbrushed out of all photos featuring Lenin, after Trotsky wrote *The Revolution Betrayed*. This August 1939 to June 1941 period of Nazi-Russian collaboration included the joint invasion, in September 1939, of Poland by Germany and Russia, Russia's invasion of Finland, and the Russian genocide against Poles (the Katryn Forest Massacre). All during the Cold War, Marxists in the West like Corbyn called for CND type unilateral nuclear disarmament to allow Russia to impose its brand of dictatorship on the West. The real drive behind Corbyn now is the young, who have been exposed by biased Nation Union of Teachers "anti-war" propaganda to a fairy tale version of history, in which wicked imperialists caused the Cold War against loving, honest Marxists. Not true. We got the bomb in the first place to end World War. Don't forget that, please.



<http://glasstone.blogspot.co.uk/> blog statistics today 1 April 2018 show that March 2018 corresponds to 48,859 page views, a record number. The "all time" page view is only for the period of May 2010 to end March 2018, and excludes the four years 2006-2010. It is worth publishing this, because the CND fanatics use a specious argument that if something isn't proved to be mainstream, they can ignore it for being a minority viewpoint (no matter how crucial the point is), while if something is mainstream, then they call it being "populist". They also attack the messenger while ignoring the message, but that is pretty commonplace among pseudo-liberals who claim to be progressive, yet whose fallacies long ago proven to be dangerous, illusory dogma. It is interesting that France and Russia both now have a higher number of total page views than local visitors.



Sunday Times 1 April 2018 is NOT an April Fools Day Joke but is too little too late because Corbyn is a danger to us all. We have long exposed the slide towards racist hate incitement by Marxist bigots on this blog, but we were ignored. Now it may be too late, unless action is taken quickly to suppress illegal racists who want to incite race wars for political gain.

War declared against the racists of anti nuclear deterrence (CND), anti-civil defence, and pro Hamas terrorism supporter Corbyn by Sir David Garrard, £1.5 million Labour Party donor



Not funny clowns at all: fascist hate incitement defending racism in Britain's "politically correct" Nazi National Socialist "peace" party threatens WWII by repeating the errors of the past, when the (pseudo) Liberal Party in 1914 failed to deter aggression and Chamberlain's Conservatives in 1939 failed to deter aggression, helped by an "opposition" of fascist loving appeasers who cheered every handshake Chamberlain gave to Hitler for worthless "arms control" and "anti-war, pro peace promises".

"One of Labour's biggest private donors has left the party, saying he no longer feels "any affinity or connection" with it. Sir David Garrard accused the party leadership of failing in its response to the "most blatant acts of anti-Semitism". He has donated about £1.5m to Labour since

2003 - but Sir David claimed the party he had supported "no longer exists". Labour's current leadership had in effect "supported and endorsed" acts of anti-Semitism ..."

"Sir David said: "As one of the former leading political and financial supporters of the Labour Party, of which I was a member for so many decades, I no longer feel any affinity with, or connection to, what it seems to have become.

"I have watched with dismay and foreboding the manner in which the leadership has, in my view, over the last two years, conducted itself."

"Sir David said the party had "failed to expel many of those who have engaged in the grossest derogatory fantasies about Jewish/Zionist conspiracies - and Jewish characterisations and accusations which conjure up the very kind of anti-semitic attacks that led to such unbearable consequences for innocent millions in the past".

"So there no longer exists a party which even pretends to maintain and promote the principles and the integrity of what always was, to me, the Labour party," he added.

"On the contrary, I have been witnessing, since Mr Corbyn became leader, a philosophical and a political policy which espouses, in nearly every respect, the very antithesis of the great party under whose reputation, and under whose flag, it now seeks to fly and where so many other Jews were once so proud to stand." - <https://news.sky.com/story/top-labour-donor-sir-david-garrard-quits-party-over-anti-semitism-row-11312352>

Update: 2 April 2018 on calls for police to arrest the criminal friends, followers and racists of anti-nuclear CND bigot Jeremy Corbyn

Police urged to probe

POLICE were last night under pressure to open an investigation into the growing tide of anti-Semitic abuse spawned by hard-Left Labour activists online.

Demand for a probe were made after an investigation unearthed anti-Jewish, violent and misogynistic comments by Labour militants, including many with close links to leader Jeremy Corbyn.

Facebook has become a sanctuary for those posting inflammatory pictures in which the Nazi swastika replaces the Star of David on the Israeli flag or lamping police on Adolf Hitler. The undercover

By Giles Sheldrick and Alison Little

research found other common themes on pro-Corbyn sites. They included Holocaust denial, calls for Theresa May to be murdered and senior Tory and moderate Labour MPs being threatened and subject to horrendous abuse.

Some posts were on a Facebook group called Jeremy Corbyn Will Be Prime Minister. Despite Labour distancing itself from the hate-filled site, at least a dozen senior staff working for the leader and his shadow chancellor John McDonnell

are thought to be members of groups where abuse is commonplace.

Lord Polak, honorary president of the Conservative Friends of Israel, said: "Now is the time to redress anti-Semitism. This is an internal Labour Party problem, but it affects us all."

"It's time to face up to the facts - a major British political party has been taken over by anti-Semites and racists, some of which advocate violence in its most extreme form."

"The law on racial hatred is very clear, a closed Facebook group cannot be exempt from or be above the law. Those who have broken the law

must face the consequences. To turn a blind eye to those who have advocated lynching, assassinations or looting of people from different races and religions is to condone anti-Semitism."

I call upon the police to investigate. Membership of, or association with, a political party does not grant anyone a free pass for racist activities."

Crossbencher Lord Carlile QC, the son of Polish Jewish immigrants and one of Britain's top legal experts, suggested the comments appeared to breach hate-crime laws.

"Sadly Facebook has to deal with this kind of posting just as it has to deal with violent extremism. It is a failure of Facebook and it's a failure of the leadership of the Labour Party."

Party sources confirmed yesterday that Mr Corbyn has deleted his personal Facebook account.

He was reported last week to belong to several pro-Palestinian Facebook groups where some members posted anti-Semitic messages, although his office said he was not aware of these.

The forums investigated have around 400,000 members, many from

Top donor quits party over race allegations

ONE of Labour's biggest private donors yesterday accused Jeremy Corbyn's leadership of "supporting and endorsing the most blatant acts of anti-Semitism."

Sir David Garrard has given Labour £1.5million since 2003 under Tony Blair, Gordon Brown and Ed Miliband but revealed he had now left the party. He said he had watched the leadership's conduct in the last two years "with dismay and foreboding."

"I consider that it has supported and endorsed the most blatant acts of anti-Semitism," said Sir David.

Failure

He cited failure to expel many of those who had "engaged in the grossest derogatory fantasies about Jewish/Zionist conspiracies and Jewish characterisations and accusations, which conjure up the very kind of anti-Semitic attacks that led to such unbearable consequences for innocent millions in the past."

The party he and other Jews had once proudly supported "no longer exists", he lamented.

A Labour spokesman said: "As Jeremy said in his email to all members this week, our party is at its best when we work together, uniting people in hope and against fear and division. Jeremy has made it clear that anti-Semitism in all its forms has absolutely no place in our party and he is committed to rooting it out."

After Mr Corbyn was first elected Labour leader in 2015, property magnate Sir David reportedly called in a £2million loan he previously gave the party. In an early sign of donor disquiet at the hard-Left MP's triumph.

Most of Labour's large donations now come from trade unions, rather than from wealthy individuals, and ordinary members' subscription fees.

my whole life and will continue to do

pledges to stamp out the 'stain of anti

By Alison Little

CROSS-dressing comedian Eddie Izzard - the newest member of Labour's cabinet

Angry female MPs demand that 'wife-beater' i

LABOUR Party sources yesterday denied that officials had failed to act on claims that an MP was violent towards his wife.

Angry female Labour MPs are demanding that the unnamed man be stripped of the party whip over the "horrible" allegations.

The party said it would encourage a formal complaint to be made but that it could not take legal action without evidence.

The women have been told that Labour HQ was previously made aware of the accusations but had

not acted. Labour women's group chair Jess Phillips used to work for the Women's Aid domestic violence charity. She is understood to have written directly to leader Jeremy Corbyn asking for the MP to be suspended pending an investigation.

A source said the allegations against the man were "horrible."

"There is no way he should be an MP and the party cannot just sit on its hands and do nothing," they added. The party insisted yesterday that it was taking the

matter seriously but wanted more evidence. A spokeswoman said: "We have been advised that we cannot legally take any action without having received a complaint or evidence to support the allegations."

"We are doing all we legally can to look into the matter and obtain evidence. We strongly encourage a formal complaint to be made to the party, and urge anyone with information to come forward."

Sources have denied the party failed to act on information. They

COMMENT

ANDREW PERCY

Conservative MP for Brigg and Goole, who converted to Judaism last year

political discourse. Yet since the election of Jeremy Corbyn I have been screamed at and called "Israeli scum" and told I should tell people before an election I am a Jew.

Ah, but that's nothing to do with Jeremy, we are told. He's an ardent anti-racist.

It isn't good enough to simply say Jeremy isn't an anti-Semite. He probably isn't, but he has to take responsibility for his hard-Left brand of politics and his relentless narrative that there is a sinister group, "the few" manipulating the system to the detriment of the many. This has allowed conspiracy theories to fester and grow and too often that leads us down a well-trodden path to anti-Semitism.

Anti-Semitism infects the far-Right and the hard-Left, but only one of those is close to power in the UK.

It is a stain on our democracy and a shame all of us that such a safe space has been provided to such hatred. Jeremy Corbyn's dismal response to this hatred should be a warning to all of us, Jewish and non-Jewish, of what we can expect from a Corbyn government.

It is genuinely frightening.

Corbyn's dismal response to ha

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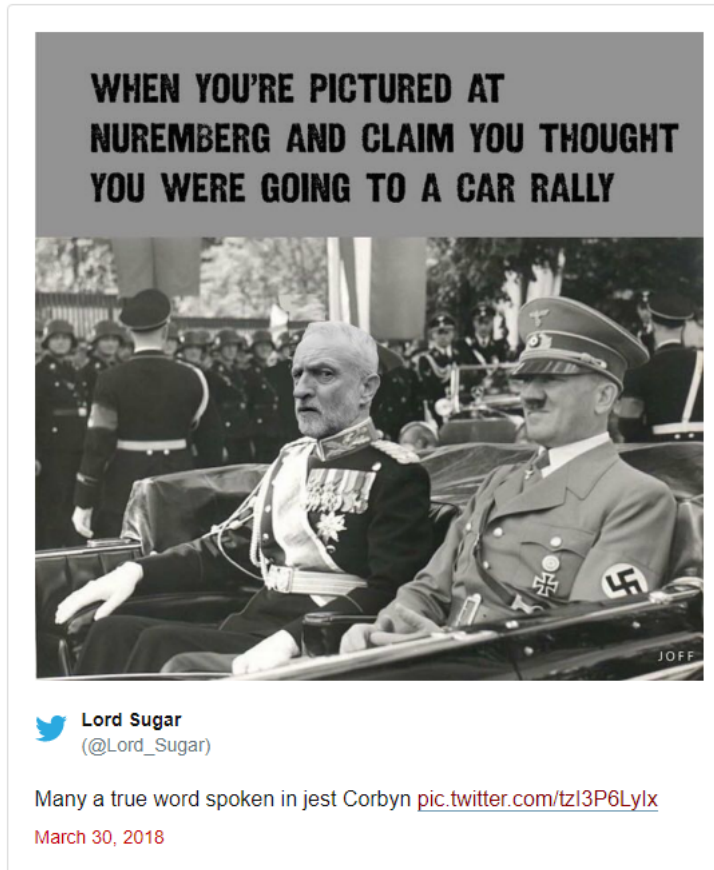
Eddie Izzard

CROSS-dressing comedian Eddie Izzard - the newest member of Labour's cabinet

Daily Express 2 April 2018 pages 6 and 7 exposing pressure on UK police to arrest Labour Party racists led by Corbyn.

"The law
clear, a cl
not be exe
law. Those

82/135



ABOVE: Another Labour supporter, Labour Peer Lord Sugar tweeted a photoshopped picture of Comrade Corbyn with Comrade Hitler in order apparently to boost Nazi support for Corbyn (although he later claimed it was some sort of sick "joke"), then deleted it on orders of Corbyn's comrade Dr Goebbels aka IRA terrorism lover Comrade McDonnell, who continues to display a plaque to IRA terrorists in his study, according to the Daily Telegraph.

Update 4 April 2018:



The Times front 4 April 2018 exposing racism of antinuclear anti civil defence leader Jeremy Corbyn.

6 **Daily Express** Wednesday April 4 2018

Corbyn 'baiting Jews' by visiting radical

JEREMY Corbyn provoked fresh fury yesterday after dining with a controversial group of young Jews who blame criticism of anti-Semitism in Labour on Right-wing enemies of the party leader.

He defended his decision to attend a Passover dinner in London with the Jewdas group, whose Twitter feed last year included a supporter posting that Israel "is a steaming pile of sewage which needs to be disposed of".

The row has damaged the party's latest efforts to calm the anger which led Jewish groups to protest outside Parliament last week.

Labour MP John Woodcock said Mr Corbyn's visit was "irresponsible and dangerous".

He added: "This is deliberately baiting the mainstream Jewish community days after they pleaded with him to tackle anti-Semitism."

By **Alison Little**
Deputy Political Editor

Jewish Labour Movement spokesman and former Labour MP Ivor Caplin said: "When we called on the leader of our party to show moral leadership and take decisive action to stamp out anti-Semitism, this is not what we had in mind."

The row erupted as Labour's new general secretary Jennie Formby started work vowing to tackle anti-Semitism as a priority.

In Swindon yesterday with party supporters including former Coronation Street actress-turned Labour MP Tracy Brabin, Mr Corbyn said of his Jewdas visit: "It was very interesting talking to a lot of young people about their experiences of modern Britain and I learnt a lot. Isn't that a good

thing? Anti-Semitism is a vile and evil thing within our society at any level, anywhere, at any time. It has got to be eradicated wherever it arises."

Jonathan Arkush, president of the Board of Deputies of British Jews said: "Either Jeremy Corbyn was deliberately provoking the Jewish community or he was guilty of a catastrophic error of judgment."

Jewdas has described allegations linking Mr Corbyn to anti-Semitism as "cynical manipulations by people whose express loyalty is to the Conservative Party and the right wing of the Labour Party".

But Lord Alan Sugar, speaking to ITV News about Mr Corbyn yesterday, said: "This country needs to get rid of him. He is absolutely dangerous - totally, totally dangerous and the party is powerless to try and get rid of him."



Picture: DAVID HARTLEY

Mr Corbyn and Labour MP Tracy Brabin hear a s



Daily Express page 6 of 4 April 2018 exposing racism of antinuclear anti civil defence leader Jeremy Corbyn.



www.dailymail.co.uk 65p

Tomorrow the Mail's passport petition goes to Downing Street. Will you add YOUR name to the **286,000 who've already signed?**

SEE PAGES 14-15 TO FIND OUT HOW



HOW LOW CAN YOU GO, MR CORBYN?

Attack: Yulia Skripal was poisoned with Novichok

Revealed: Militant Jewish group he partied

No 10 hits back after lab says: We can't prove poison came from Russia
SEE PAGE FOUR

with for 4 hours mocks Judaism and Queen

JEREMY Corbyn faced a revolt last night after meeting a fringe Jewish group that has dismissed Labour's anti-Semitism crisis as a 'malicious ploy'.

The Labour leader was accused of a 'gratuitous insult' to mainstream Jews by sharing a Passover meal with Jewdas, a radical Left-wing body that has called Israel 'a steam-ing pile of sewage'. He enraged a string of Jewish community groups at a time when anti-Semitism claims have engulfed the party and threatened Mr Corbyn's leadership.

Jewdas has described the anti-Semitism scandal as a Right-wing smear and accused mainstream Jewish groups of 'playing a dangerous game'.

It once staged a satirical event celebrating 'the glorious relationship between Jews and money' - and published an obscene 'prayer' that is offensive to the Queen and Prince Philip.

Despite this, an unashamed Mr Corbyn insisted he had no regrets 'in the slightest' about meeting with the organisation's members.

Last night, extraordinary details emerged of Jewdas's history and of Monday night's event, at which attendees shouted 'f*** capitalism' as a plate of beetroot from Mr Corbyn's allotment was raised in the air. The Mail can reveal:

■ In a programme for the event, **Turn to Page 6**

By John Stevens and Claire Ellcott

Daily Mail 4 April 2018 page 1 Corbyn racist stunt of attending the anti-Jew "Judas" aka "Jewdas" satire on the Jewish Passover. The equivalent in terms of Islam would be to ridicule the Islamic Eid festival, which traditionally means a death sentence. Racism is the hypocrisy of discrimination against Jews or bias against a specific race. Corbyn indeed discriminates against the Jewish race, for he only attends satires that insult orthodox Jews, not Islam.

Page 4

Daily Mail, Wednesday, April 4, 2018

Putin: 20 nations may be guilty of spy attack

■ Porton Down can't pin nerve agent to Russia

■ But No10 still insists Kremlin is responsible

By Jason Groves



and Larisa Brown

VLADIMIR PUTIN last night claimed 20 countries could have poisoned **Sergei Skripal** after **Porton Down** said it could not prove the nerve agent used had come from Russia.

The head of the military research facility said it had not yet been possible to say where the Novichok used in the attack was made.

Gary Aitkenhead confirmed the poison had been produced by a 'state actor', saying: 'It's a military-grade nerve agent which requires extremely sophisticated methods in order to create - something that's probably only within the capabilities of a state actor.'

But he told Sky News it was not Porton Down's role to work out its origin and said

'No other plausible explanation'

the Government relied on 'a number of different input sources' in coming to its assessment that this was highly likely to be from Russia.

Mr Aitkenhead flatly denied bizarre Russian claims the substance could have come from Porton Down itself.

Downing Street last night said Mr Aitkenhead's comments made no difference to the Government's assessment that the attack emanated from Russia, which was based only partly on the evidence from Porton Down. Sources said allies, who have expelled more than 100 Russian diplomats in response to the attack, had already been briefed on the intelligence assessments that put the blame on Moscow.

But there was irritation in Whitehall at Mr Aitkenhead's 'clumsy' intervention, as ministers privately braced for a fresh wave of Kremlin propaganda.

Last night Mr Putin seized on the admission to call for a full inquiry, saying 'the speed at which the anti-Russian campaign has been launched causes bewilderment'. He claimed the nerve agent could have been made in any of 20 countries.

The Russian Embassy in London said: 'We understood from the very start that UK Government statements on the nerve agent having been produced in Russia were a bluff. Now this has been confirmed by the head of the secret lab.'

But Salisbury MP John Glen said he had 'absolutely no doubt' about Russia's involvement, adding: 'I don't mind what propaganda emerges from the Kremlin.'

Government sources stressed the chemical analysis from Porton Down was only 'one part of the

intelligence picture' in the decision to point the finger at Russia.

A Government spokesman said: 'As the Prime Minister has set out in a number of statements... since March 12, this includes our knowledge that within the last decade, Russia has investigated ways of delivering nerve agents probably for assassination and as part of this programme has produced and stockpiled small quantities of Novichok; Russia's record of conducting state-sponsored assassinations; and our assessment that Russia views former intelligence

Investigation: Yulia Skripal arrived in the UK on March 3. She and father Sergei, inset, were taken to hospital on March 4

By **Larisa Brown**
Defence and Security Editor

A **RUSSIAN** on the same flight into the UK as Yulia Skripal before returning to Moscow a few hours later is being investigated over the attack.

Britain's spy agencies have red-flagged an individual who arrived at Heathrow on the Russian state-owned Aeroflot flight AFL2570 from Moscow that landed at 2.32pm on Saturday, March 3.

The Russian then got a flight to Moscow after a few hours on British soil, raising questions as to the purpose of the short visit, security sources told the Mail. The Skripals were hospitalised on March 4.

A senior Whitehall source said the individual had been identified as a 'person of interest' by intelligence agencies, and pointed to more than one person being investigated. It is not clear if the person is suspected of delivering the agent, administering the Novichok, or of being linked to the attack in some other way.

The source said: 'We certainly believe it's possible those responsible were out of the country within hours.'

It comes after Salisbury MP John Glen, who was party to Cobra briefings on the attack, suggested there were questions to be asked about those who were on the plane with Miss Skripal.

Counter-terrorism officers have previously avoided referring to any suspects

Was poisoner on the same flight to UK as daughter?

with regards to the poisoning. The fact a suspect could not be immediately identified pointed to the prospect of the nerve agent being delivered by post or in Miss Skripal's suitcase.

But it has now emerged intelligence officials believe the would-be assassin, or assassins, may have fled back to Moscow within hours of delivering the lethal agent. Security sources also said the searching of an Aeroflot plane that landed at Heathrow Airport on Friday - described by the Government as 'routine' - was based on intelligence.

Mr Glen said: 'We've got to think about the overall picture... Who was on the flight with Yulia Skripal? Did that person return to Moscow a few hours later? What

happened in the run up to the events here? That would have involved other people - it wouldn't just involve Novichok coming here. How did it arrive here?'

Last night security sources confirmed the passenger list for Miss Skripal's flight were among files being examined by intelligence agencies. It is not clear if the individual was known to the security services beforehand or if they are linked to the Kremlin.

■ Sergei Skripal had given his daughter access to a £150,000 'secret bank account' just days before he was poisoned, a relative has revealed. He passed power of attorney of the funds, held in an unknown Russian bank, to his daughter in late February, said his niece Viktoria Skripal.

it is from. There is no other explanation than this has come from the Russian state.'

The row came ahead of a meeting in The Hague today of the executive council of the Organisation for the Prohibition of Chemical Weapons (OPCW) to discuss the Salisbury attack. The meeting was called by Russia to 'address the situation around allegations of non-compliance' with the chemical weapons convention made by the UK against Moscow.

The Foreign Office dismissed it as a 'diversionary tactic'. Mean-

while, retired Russian lieutenant-general Evgeny Buzhinsky warned that relations between Russia and the West could 'end up in a very, very bad outcome'.

Asked to elaborate, he told BBC Radio 4's Today: 'A real war, worse than a cold war... it will be the last war in the history of mankind.'

Commenting on his remarks, No10 said: 'As the Prime Minister has made clear, the UK would much rather have in Russia a constructive partner ready to play by the rules. But this attack in Salisbury was part of a pattern of increasingly aggressive Russian behaviour.'

Corbyn and Putin are now joining forces to argue that Russian Novichok was *not* used against the UK on 4 March 2018, which as we argued in an earlier update (above) is all due to secrecy by Prime Minister May and Foreign Secretary Boris Johnson, who refuses to learn the lesson of **Prime Minister Tony Blair's official UK Government "dodgy dossier" on Iraq's Weapons of Mass Destruction, issued in 2002 to justify actions against dictator Saddam (I put that dossier on Internet Archive, linked here, to preserve it for**

history). Sigh. Let's go back over this again. In 2002, Prime Minister Tony Blair issued that **dossier** which excluded the scientific data, which was secret. The weapons were never found after the Iraq war, so some people then pretended they didn't exist, despite the fact that Iraq provably had weapons stocks and didn't provide any evidence of destroying them at any point. Now, if a regime has a stockpile and destroys it, it tries to publicise the fact that the stockpile was destroyed. It doesn't justify a war on itself by keeping the destruction secret. So the weapons were probably just hidden (somewhere in thousands of square miles of desert sand, needles in haystacks impossible to locate ever, like the tomb of Cleopatra). The lesson is that you need to publish the evidence to prevent any controversy. Instead of which, the UK Government has invited Russia to launch a propaganda war, claiming that Russia never made any Novichok, that Porton or MI5 are terrorists, etc. This is now escalating the confrontation with a country which has many times the nuclear weapon stockpile of the UK, and **far better civil defence shelters left over from the USSR, many of which have been re-equipped with new radiation meters and supplies**.

We should not be allowing Putin and his Comrade Corbyn to feed fake news to the BBC, the Guardian and the Daily Mirror. We need to publish the full facts, to avoid the obfuscation of secrecy. In October 1962, Kennedy published the full evidence - top secret U2 spy plane photos - to the people of the world to justify his claims about the covert, lying delivery of Russian nuclear missiles to Cuba, just off the coast of America. He proved his case with evidence, instead of relying on a lot of secretive bungling bureaucrats who make contradictory statements that fuel an escalation of the crisis.

UPDATE: 5 April 2018

4 **Daily Express** Thursday April 5 2018**EXCLUSIVE**

Peers' letter to Met chief urging probe on anti-Semitic abuse

By **Giles Sheldrick**

ELEVEN peers last night demanded an urgent police investigation into anti-Semitic online abuse peddled by hard-Left supporters of Jeremy Corbyn.

In a letter to Scotland Yard the group of lords claim a series of violent, anti-Jewish comments breach the Public Order Act.

It is the first time the Met has received such a complaint in response to anti-Semitic abuse on sites like Facebook.

Mr Corbyn faces growing pressure to distance himself from

Dear Commissioner

We would, firstly, like to express our sincere gratitude for the protection you and the Met provide to the Jewish community – it is greatly appreciated. We are writing to you to ask you to consider some serious concerns which have arisen recently.



During Easter, The Sunday Times published a number of recent examples of hate speech on social media platforms. We believe that many of the messages may be a breach under the Public Order Act (1986) and would ask that the Metropolitan Police

Daily Express 5 April 2018 page 4 on calls for police to investigate Jeremy Corbyn racism supporters. Ex-Labour peer Lord Sugar, Lord Polak, Baroness Altmann, Lord Beecham, Lord Carlile, Baroness Deech, Lord Leigh, Lord Mitchell, Lord Palmer and Lord Turnberry have at last written a letter to the Commissioner of Police at Scotland Yard, requesting support against Corbyn's fans. However, Corbyn is effectively appealing to Putin for support by rejecting claims that Russian aggression led to the Novichok attack on 4 March 2018, and Corbyn has also just attended a satirical Passover dinner, ridiculing not only Jews but when his friends shouted "f*** the police". So the police is not really in a position to intervene now. It is too late. Anyone trying to prosecute or arrest racists who are followers of Corbyn must weigh up the risks of finding their front door smeared with Novichok, or facing retaliatory actions when Corbyn is PM. The evidence for Comrade Corbyn's Russian spy involvement is known by all:



The Sun 21 February 2018 page 10 asks vital security questions that Corbyn calls "harassment" by the media: yet evidence exists that Corbyn is a threat to UK national security, and recent evidence proves that his Marxist criminal mindset is unaltered from his 1980s USSR spy period, when he was a stooge for Russian "divide and rule" attempts to pervert democracy in the UK. Yet he is being given secret information on Novichok which is denied to Joe Public, and then he is abusing this position of trust to support Putin. Corbyn refuses to release his East German Stasi police

files for public viewing. He is a secretive manipulator, a liar on nuclear weapons deterrence, and as we exposed in a earlier post, a shameful bigot towards civil defence to save lives in the wars that his kind refuse to deter around the world. In Reagan's terms, he is becoming the focus of evil in world.

posted by Nuclear Weapons Effects 3:57 pm  

56 COMMENTS:

At 4:28 pm,  *Anonymous said...*

Keep up the superb work, I read few posts on this site and I conceive that your site is real interesting and holds sets of excellent info.

At 9:44 pm,  *Anonymous said...*

I like your writing style truly enjoying this web site.

At 12:54 am,  *Anonymous said...*

Pro-Russia propaganda, but a different and (partially) logical viewpoint nonetheless:

<https://www.rt.com/news/421591-uk-produce-novichok-agent/>

The UK government presumes that (a the type of poison used was invented in Russia/USSR. (b only Russia can create this kind of poison, and then (c Russia did the poisoning.

This might well be the case. However, if "Novichok Agents" are so secret, then how can Britain know one when the see it? They would have had to be given a confirmed sample from Russia to compare against the nerve agents used on Skripal, or else have learned (either openly or by espionage) the composition from Russia.

In any case, the UK government is either unable to prove the poison originated in Russia, or perhaps they too have a good understanding of the substance.

Now, knowing how to recognize a substance is not the same as knowing how to create it, but the two often go hand in hand. If an advanced chemist knows the molecular composition and structure of a compound, they can often find ways to make it from other available compounds. If the British government is able to identify Novichok agents as positively as they claim, then they are probably able to chemically synthesize them, too, just like the Russians. I'm not saying that this is a false-flag attack, but this possibility should not be ruled out.

Whoever did the poisoning, whatever poison they used, however they delivered it, whatever the reason, and whatever the political consequences will be, a good supply of gas masks (and some atropine or whatever is the appropriate antidote) is not a bad idea!

At 12:55 am,  *Anonymous said...*

What is, IMO, is the weapon system detailed in Los Alamos report LA-9004. The problem, is that it plans on targeting individual tanks (and small groups of tanks) with nuclear warheads. Even North Korea has 5000 tanks. Russia has 20000:

<https://www.globalfirepower.com/armor-tanks-total.asp>

Say that each of these weapons destroys an average of 5 tanks (some will get less, but some will get many more) Now we need to come up with perhaps 1000 of these nukes, all designed for this specific purpose. And we need them fast! Now, with a more sensible approach, you can have have boarder walls and guards, and maybe a few tactical nuclear weapons, designed to be used on large, dense groups of tanks. Once tanks and personnell disperse into smaller groups, or begin travelling in narrow columns, nukes are no longer a sensible option. A better one, in my opinion would be a strong "home guard" or "citizen's guard," to go with a civil defense program. You could have maybe 2-10% of the population who train periodically, have guns, etc., but are not enlisted in the military in the conventional sense of the term. They can be farmers, factory workers, doctors, or anything else in a society. They don't have to be kept in barracks during times of peace. But if a war starts, they can be ready to fight. Such a force can provide cheap, effective deterrence against an invading force using small arms, and machine guns, cannon, remotely controlled mines and small rockets to attack enemy vehicles and large groups of personnel.

The reason why enormous numbers of small nuclear weapons are impractical is simply an economy of scale. It takes almost as much resources to produce a 30 ton yield warhead as it does to produce a 30 kiloton warhead. The yield proposed in LA-9004 is not given, but it appears to be very low. If Los Alamos is still ignoring attenuation by buildings, the claim of it only "rattling windows" at 300 meters would suggest a yield under .05 kt. With enough blast attenuation, however, even a weapon in the range of a few hundred kt may only "rattle" windows at 300 meters. However, the way the article kept saying it was such a low yield, and would hardly do any blast damage to a tank at 25 m, etc, suggests a warhead below 10 kt in yield. At 10 kt, approximately 500 grams of fissile material are fissioned (or 2.5 grams at .05 kt), but this material is used up throughout a much larger core, of perhaps 3-6 kg mass. This inefficient enough to make this defense impractical.

At 3:16 pm,  nige said...

"Once tanks and personnel disperse into smaller groups, or begin travelling in narrow columns, nukes are no longer a sensible option."

Please remember that the whole point of the neutron bomb is to DETER concentrated personnel/truck/tank/mobile missile launcher invasions, to PREVENTING invasions of the 1914 Belgium sort that set off WWI and the 1939 Poland sort that set off WWII.

We want to DETER war, by PREVENTING APPLICATION of the "principle of concentration of force." As long as we also have handheld anti-tank rockets for dispersed attacks and thus properly defended border walls (unlike the imaginary boundary between Eastern Ukraine and Russia in recent years), then we can hold off WWII. Nuclear weapons are used to credibly deter war, not to actually blow things up.

"It takes almost as much resources to produce a 30 ton yield warhead as it does to produce a 30 kiloton warhead."

If we NEED to avert collateral damage risks in areas where civilians live JUST beside borders over which armies can invade, then we might need very low yields to CREDIBLY DETER war. The "bigger bang for the buck" argument is moot if the bigger bang is incredible as a deterrent!

Broken windows (which can occur down to about 0.1 psi peak overpressure, if face-on to the blast) don't matter if the wind pressure behind the blast winds behind the shock front are too slow to accelerate the glass fragments to injuring velocities.

There was a massive CND and BBC trickery campaign in the Cold War, in which the impacts of high velocity flying glass from 10 psi peak overpressure on pumpkins placed behind the windows (with no "duck and cover", blinds, curtains or clothing protection at all, naturally!) was deliberately shown when the commentator discussed how far "windows are broken". Shop windows were sometimes broken in Las Vegas during kiloton nuclear tests 70 miles away, but the fragments did not constitute a hazard. The glass was simply cracked, falling with gravitation vertically, and remained beside the window, instead of being blasted into people as occurs at closer rangers, at high wind pressure.

Clearly, therefore, the distance to which the danger from flying glass extends is only a fraction of that at which glass panes facing ground zero can be "broken". At 1 psi peak overpressure, the maximum blast winds are only 70 miles/hour and glass fragments will be accelerated to lower velocities than that! Experiments prove that even ordinary clothing provides substantial protection, and any person standing behind a windows will instinctively turn away or

close their eyes due to painfully bright flash. If the flash is attenuated by heavy curtains, those will stop or slow most of the flying glass, too!

If I can just add this: a really hard program of research may produce a better neutron bomb, cleaner and cheaper in terms of fissile material. At present, the low fission yield stage means a very low percentage of that energy is radiated as X-rays and available to compress and heat the secondary (fusion) stage. What is needed is additional energy coupling of other forms of energy to improve the efficiency of the fusion stage in low yield thermonuclear weapons, and as explained in an earlier post, that can be done using proof tested principles of electromagnetic pulse generation via magnetic flux compression in a coil around the fission primary stage, the energy pulse of which can be fed into magnetic field generator coils around the nearby fusion stage (just as has been done, for short duration pulses, in some "peaceful nuclear fusion reactor" experiments). Given research, something like this could cheapen and improve low yield neutron bombs.

At 3:44 pm,  nige said...

"However, if "Novichok Agents" are so secret, then how can Britain know one when they see it? They would have had to be given a confirmed sample from Russia to compare against the nerve agents used on Skripal, or else have learned (either openly or by espionage) the composition from Russia."

There is a large amount of surprisingly updated military use information on nerve gas warfare in the 2014 Russian civil defense manual, which I put on Internet Archive and linked to in the recent post at <http://glasstone.blogspot.co.uk/2017/09/1929-photo-of-dr-samuel-glasstone-for.html>

E.g., see

<https://archive.org/stream/RUSSIANNUCLEARWEAPONSEFFECTSCOUNTERMEASURES1960TO2014/RUSSIAN%20NUCLEAR%20WEAPONS%20EFFECTS%20COUNTERMEASURES%201960-2014>

For example, please see their tables on pages 57-58, linked here, which are far more detailed and militaristic than anything in their old USSR civil defence manuals on nerve gases. This indicates recent research on this subject by the Kremlin, before than 2014 book which coincided with their use of gas via Assad in Syria and also the invasion of Crimea, etc.

There are also [links to various references from defecting Russian scientists on Novichok, here](#). Let me explain, please: a Russian scientist defects and says "Russia has made a new Novichok nerve gas that is x times more powerful than VX, and here is the formula (waving a piece of paper) for you to check what I say!" We check the chemical compound in a very sophisticated massively parallel processor 3D chemical molecule computer simulation to see exactly what its properties are, compared to known nerve gases like VX. We then validate the claim, strong evidence that it is true, without any risk of being duped by lies (or being killed by accident). Simple.

At 3:52 pm,  nige said...

BTW, Porton Down has been strapped of cash (unlike Putin's scientists!) since the Cold War ended in 1992. They did not even have enough personnel to deal with the decontamination of the recent attack, without getting help from the Army. We are in a terrible state regarding civil defense and military preparedness against Russia, North Korea (which is probably just playing for time in agreeing to a Summit with Trump, like Iraq did for years), China, and terrorists. The government has only authorised an emergency £60 million cash injection into Porton Down after the latest attack happened; too little, too late. We've known for years that nerve gas has been used by the Russians and their allies in the Middle East, e.g. Syria. We've done very little, just spying, no concrete efforts to deter, stop or defend ourselves in war. Yes, a few new gas masks for soldiers to replace the old S10's, but very little for retaliation!

At 4:05 pm,  nige said...

Information on Russia's Novichok program came from people such as the Russia Chemical War scientist Vil Mirzayanov. The thing is, there was very little interest in this until the latest attack. Now Russia is denying everything. It's absurd, because independent experts have verified the properties of the chemical compounds Mirzayanov and other dissidents from Putin have disclosed! They didn't just write down chemical formulae out of their heads as a gimmick. These are really lethal weapons, and we know Russia was dishonest and lied about Po-210 poisoning in London 2006, dishonestly used unmarked military vehicles in invading the Ukraine, etc. The whole obsession of people like commie "socialist" Jeremy Corbyn with believing Russian propaganda, or asking them for more of it (which will come if we send them samples in a travesty of diplomacy), is crazy. I'm all for talking to and negotiating with Putin, but for God's sake let's use gunboat diplomacy and re-arm ourselves to make Putin more sensible. Power is the language he loves; he sees weakness as a joke.

At 5:36 pm,  nige said...

I just want to address some specific flaws in your suggestion:

"Now, with a more sensible approach, you can have boarder walls and guards, and maybe a few tactical nuclear weapons, designed to be used on large, dense groups of tanks. Once tanks and personnell disperse into smaller groups, or begin travelling in narrow columns, nukes are no longer a sensible option. A better one, in my opinion would be a strong "home guard" or "citizen's guard," to go with a civil defense program. You could have maybe 2-10% of the population who train periodically, have guns, etc., but are not enlisted in the military in the conventional sense of the term. They can be farmers, factory workers, doctors, or anything else in a society. They don't have to be kept in barracks during times of peace. But if a war starts, they can be ready to fight. Such a force can provide cheap, effective deterrence against an invading force using small arms, and machine guns, cannon, remotely controlled mines and small rockets to attack enemy vehicles and large groups of personnel."

I like all your ideas, but not nuclear disarmament! My problems with this are that:

(1) We still need tactical nuclear weapons to make enemy force disperse, i.e. to prevent the sort of concentrated Blitzkrieg that overcame the Belgium defences in 1914 and the Polish in 1939. It's no good saying that once they disperse, we don't need any nuclear bombs.

We (ironically) need nuclear weapons to make the enemy force disperse in the first place, so **nuclear weapons are always going to be necessary in order to keep a war conventional by forcing the enemy to use dispersion tactics which enable us to use nun-nuclear tactics.**

(2) Your whole approach of civilian mobilization into military conscripts when an invasion is threatened is what was behind the crisis instability of August 1914, when millions of conscripts and defense volunteers were recalled, kitted out with guns and uniforms, and sent to the fronts (borders) by trains or on foot. The problem is that this massive conventional mobilization system was incredibly expensive in logistics and also was perceived by neighbors as a threat! You know, if a country mobilizes huge conventional forces on the border of some country, people in that country want to do likewise, and you get exponentially escalating crisis instability. The tension rises, the economy is busted and war fever breaks out because of fears that he who strikes first has the advantage of surprise. There is also a fear that the logistics needed will run out or devastate the economy. Any accidental gunshot is then perceived as the starting pistol for the war.

So the whole problem of conventional weapons mobilization is that it really doesn't deter war, but makes war more likely. As Thatcher put it in the final episode of the 1989 documentary "The Nuclear Age":

"After all, two world wars have shown that conventional weapons are NOT enough to deter war, and if we want a war-free Europe, we must continue to have a nuclear deterrent."

Conventional weapons are so bulky compared to nuclear weapons, that mobilization preparations (bringing troops to frontiers, etc.) are obvious and cause war hysteria, that often triggers off war on any pretext (like an accidental shooting). Nuclear weapons, by contrast, are the ONLY THINGS THAT HAVE BEEN PROVED TO DETER WWII. End of story.

At 5:59 pm, Anonymous said...

"Let me explain, please: a Russian scientist defects and says "Russia has made a new Novichok nerve gas that is x times more powerful than VX, and here is the formula (waving a piece of paper) for you to check what I say!" "We check the chemical compound in a very sophisticated massively parallel processor 3D chemical molecule computer simulation..." Then British weapon laboratories probably could indeed create their own batch of Novichok, if they were so inclined. I'm not saying that they DID, just that they COULD if they wanted to.

The simplest explanation to Skripal's poisoning is that it is Russia, making an example of a defected spy, saying "Don't make an enemy of the Russian government; where ever you are, we will find a way to get even with you. We know how to assassinate people with complete impunity. And, we have some mean military weapons (nerve gas can obviously be either for war or assassination, depending on how much is applied) too, so don't even think about declaring war on us."

What I said about broken windows has nothing to do with whether broken glass is lethal. I was just saying the yield they planned could be large, maybe even a few hundred kt, if blast attenuation was taken into account in LA-9004. If, as usual, the document is ignoring this effect, they are likely talking about something under .05 kt. I also know that the idea is credible deterrence, so that you hopefully don't have to blow anything up. All I said is that this idea of making nuclear weapons to irradiate one tank at a time is foolish. If you would run out of them before you have stopped the invasion, then the enemy might decide to take the loss. But, if you have a military system that will annihilate most of the invading force, that is more credible. If they are in a city and concentrated in one area, it might be best to target that one area with a larger yield. If the whole place is full of enemy tanks, you need to cover it all with lethal effects, and that is going to take a lot more warheads using low yields than high yields (by which I still mean only a few kt). If they are dispersed, then they shouldn't be targeted with nukes at all. Other means should be used. Of course, all of this is the PLAN, which you have ready in order to DETER an invasion which would require it being put into action. It's not so much an issue of collateral damage; the main danger from such a device is initial radiation, there would be little damage to buildings, and citizens could go into air raid shelters or be evacuated prior to the battle. The issue is how many of these things you can make, in a cheap and timely manner.

At 6:00 pm, Anonymous said...

"If I can just add this: a really hard program of research may produce a better neutron bomb, cleaner and cheaper in terms of fissile material." Yes. But that will be a very, very hard research program indeed, and possibly a fruitless one. Currently, if you make the fissile core in the primary too small, you won't have any yield, not even a ton equivalent, to channel to the secondary. The only way to change that is with better compression of the primary core, and systems with better compression tend to be much bigger. If you have a quarter of the mass, (say, 750 gm instead of 3 kg), you likely have to reduce it to a quarter of the surface area, which means the radius must shrink by 50%. If you reduce the mass by 16 (and now you are starting to get passable efficiency at low yields) you have to reduce the area to 1/16, reduce radius by 75%, and increase density 4 times. To change this pattern, I think the only options will be (a find a fissile material that absorbs neutrons along a shorter path at any given density (b find a material which produces many more neutrons during fission, (c find a material which deflects neutrons very effectively in thin layers, without absorbing them (d devise a way to use a moderator (this has been tried already at Upshot Knothole Ruth and Ray; slowing down the neutrons reduced the speed of the reaction, leading to less fission occurring before disassembly of the core) or (e find something entirely different which is capable of initiating fusion, like spherical implosion in metastable metallic hydrogen, with a metallic deuterium core, or a way of creating antimatter efficiently. A small device capable of initiating fusion without a fissile primary state would be truly revolutionary, and has been researched for a long time. This link provides some preliminary estimations of the effects of such a device: <https://arxiv.org/pdf/physics/0510071>

Anyhow, keep up the good work. You're providing the data needed to implement civil defense, and the news suggesting that we need it. Now, it's just a matter of getting bigoted people in government to listen!

At 7:40 pm,  Anonymous said...

One more thing: When I talked about a "strong home gaurd", I did not mean people being conscripted, and mobilized to the front lines. I was thinking more along the lines of people who are ready to fight FOLLOWING INVASION, but not always on duty during peacetime. This type of "reserve" can be technically part of the conventional military, as in the US National Guard

(https://en.wikipedia.org/wiki/National_Guard_of_the_United_States) or as a group of people who are supplied with training and weapons via the government, and would take orders during a time of crisis, but are not officially part of the military:

([https://en.wikipedia.org/wiki/Home_Guard_\(United_Kingdom\)](https://en.wikipedia.org/wiki/Home_Guard_(United_Kingdom)))

(https://en.wikipedia.org/wiki/Volunteer_Fighting_Corps) (although these were very poorly trained and equipped, but still an example)

(<https://en.wikipedia.org/wiki/Volkssturm>)

Regardless of whether these units are considered part of the conventional military or not, they do not have to be "mobilized." they do not have to be kept in barracks during peace. They can continue working normal jobs in factories, fields, offices, hospitals, while only training periodically. You can't rely on this type of defence entirely, but it is a good back-up for the conventional forces, following an invasion. Walls, powerful weapons, bunkers, etc can all be overcome if an invading force finds a way to disperse, or circumvent a barrier like the Maginot lines. Having a third line of defense makes ANY type of invasion seem much less attractive.

To be clear, I am suggesting something like the following in the case of Britain:

Gas masks and protection against nukes (evacuation, household shelters, public shelters, etc.) for everyone

Civil Defence training for everyone

This equipment and training could probably be given for under \$200 per person, even with modern inflation. In the early days of ABM defense, the cost of providing bomb shelters was considered more cost-effective than ABM:

https://en.wikipedia.org/wiki/Nike_Zeus#Perfect_or_nothinghttps://en.wikipedia.org/wiki/Nike_Zeus#Perfect_or_nothing

For Britain, I'm assuming the cost for shelters will be \$13B

Rifles (600\$ in mass), ammunition (1000rds, under 500\$) and a small amount of instruction for training, not the entire basic training used by the army (2000\$) plus, 2000 rounds (\$1000) for fighting. Some expenses (like more training equipment) can be paid for by volunteer members, if they are so inclined. Anyhow, I estimate that the gov't cost in getting a "citizen soldier", trained and equipped enough to do anything, is probably around \$5000, or \$15B to get 3 million dispersed "guerilla" or "stay-behind" fighters.

Anti-tank warfare: Potassium Chlorate is an explosive chemical used in ww1. It can be produced using approximately 31 kwh of electricity per kilogram, for a cost (at \$.20/kwh) of \$6/kg. it is ideal for decentralized production.

<https://www.youtube.com/watch?v=E5hAct2dmT4>

I propose 300,000 separate 100 watt chlorate units, at a cost of \$150 a piece, capable of creating 28 kg/yr of product for a total of 4200 large anti-tank remotely operated mines per year. The initial cost would be \$45M, and 50.4M/year after that.

In summary, \$13B for civil defense, \$15B into a "citizen soldier" or "militia" program, and perhaps \$200M to add decentralized anti-tank weapons in great quantities. I have to stress that this needs to be IN ADDITION to perhaps as few as 2000 new tactical nuclear weapons such as anti-ship, anti-submarine, and enhanced radiation, with yields of between 1 and 100 kt. \$29B is a lot of money, but it is still less than the current UK defense budget. Over a period of a few years, Britain could create an extremely strong credible deterrent, consisting of combined nuclear, conventional, and paramilitary forces, as well as civil defense.

At 10:07 am,  nige said...

"Currently, if you make the fissile core in the primary too small, you won't have any yield, not even a ton equivalent, to channel to the secondary. The only way to change that is with better compression of the primary core, and systems with better compression tend to be much bigger. ..."

This is completely wrong! You haven't grasped the whole point at all! You can make the primary yield ANYTHING YOU LIKE, even with existing technology (this is WELL ESTABLISHED, and the article and numbers you give are complete obfuscation), by adjusting the time between firing the implosion system and firing the neutron pulse generator. This is how you can get 20 tons of TNT yield from a W54, tested in 1962 successfully. This is totally unclassified, and you are writing inaccurate stuff, and you link to a paper by a propaganda writer who hates credible nuclear deterrence and was debunked by a British military nuclear weapons effects expert for driting lies in the New Scientist in 1986, as we showed in a post back in 2006. There is NO PROBLEM with getting small primary yields.

As I stated in my comment above, the ONLY issue is quite different to what you claim.

Uncompressed but in a good tamper of beryllium, about 4.4 kg of Pu239 is the critical mass. The effective critical mass decreases as the square of the compressed density, so an implosion system which doubles the density, means you can use roughly 1.1 kg of Pu239 to get a critical mass during implosion. If fission was 100%, this would give you almost 20 kt yield, but you can choose anything you like, because the compressed core rebounds outwards as the shock wave reached the middle of the core, and rebounds. By firing the neutron pulse generator at a selected time for a given configuration during the "rebound" of the core, you can achieve any yield you like, 2 tons of TNT, 20 tons of TNT, 0.5 kiloton, etc.

So that is not the problem. You are NOT reducing the amount of fissile material below about 1 kg of Pu239 to reduce the yield; you are instead increasing the delay time between firing the detonators and firing the neutron generator tube.

Now, as I explained above, the issue is then how much fission yield you need which is high if you are using X-rays for coupling, but will be REDUCED if you utilise other means as well, to make the coupling more efficient. You ignored what I wrote:

" At present, the low fission yield stage means a very low percentage of that energy is radiated as X-rays and available to compress and heat the secondary (fusion) stage. What is needed is additional energy coupling of other forms of energy to improve the efficiency of the fusion stage in low yield thermonuclear weapons, and as explained in an earlier post, that can be done using proof tested principles of electromagnetic pulse generation via magnetic flux compression in a coil around the fission primary stage, the energy pulse of which can be fed into magnetic field generator coils around the nearby fusion stage (just as has been done, for short duration pulses, in some "peaceful nuclear fusion reactor" experiments). Given research, something like this could cheapen and improve low yield neutron bombs."

We can reduce the primary fission stage yield in a neutron bomb IF WE INCREASE THE EFFICIENCY OF THE COUPLING. The expense problem is due to tritium, not plutonium. By increasing efficiency of compression, you need less tritium for similar fusion yield!

At 10:16 am,  nige said...

Obviously by "you can choose anything you like" in my comment refers to the range of yields available up to the highest efficiency achievable, maybe 50% with a large implosion system, spherically symmetric. I.e., 10 kt yield for 1.1 kg of Pu239, or so.

The great ADVANTAGE of using inefficient fission weapons (very small percentage of fission, i.e. 20 tons of TNT from 1.1 kg of Pu239 is a fission efficiency of only about 0.1%), is that you can use VERY COMPACT linear implosion systems, which is how the W79 neutron bomb diameter was small enough to fit into a shell! If you are using a deliberately "inefficient" fission primary for low fission yield, you can forget all the problems of efficient fission bomb design, and deliberately use "inefficient" systems.

What you are aiming for is low fission yield, not the use of a small amount of Pu239! It is vital to grasp this. To make a neutron bomb a more credible deterrent, we're not concerned with the amount of Pu239 in the primary stage, but with:

(1) the percentage of it which gets fissioned, and

(2) the coupling mechanisms used to deliver as much of that (small amount of) energy as possible to the fusion stage, to minimise wastage of tritium. This makes it cheaper!

At 4:59 pm, Anonymous said...

Thank you Nige for your update about Mirzayanov's Novichok information book "State Secrets: An Insider's Chronicle of the Russian Chemical Weapons Program". I was amazed to see that on the American amazon.com site it has 5 star reviews, but on the UK site www.amazon.co.uk there is only one review by an associate of Corbyn's standpoint which gives only 1 star and claims:

"“Only the Russians” developed this class of nerve agents, said the chemist. “They kept it and are still keeping it in secrecy.” Yet the whole formula for Novichok is printed in the book not much of a secret then. After that I lost trust."

This is totally deluded because Mirzayanov was the one who leaked the formula, disclosing the Novichok program to the world. The fact that Putin keeps refusing to admit the truth over Po-210, Crimea, Ukraine, Syria and now Novichok doesn't stop dissidents from debunking him.

At 5:32 pm, nige said...

Thanks for pointing that propaganda out! I see a more positive review, helped by the analysis in this post, has now appeared from a friend of the truth www.amazon.co.uk/review/R1YXU3Z9VJRW1

At 7:08 pm, Anonymous said...

"This is completely wrong!"

If it's so wrong, then why has no nuclear test been conducted with say, 10 grams of fissile material, and a yield of 10-100 tons? Surely a core of less than one cubic centimeter in volume would make for a very compact weapon.

Or, maybe it would take an enormous implosion system weighing tons by itself, and a level of precision in the implosion sequence which has yet to be achieved in any modern nuclear weapon, in order to compress those 10 grams to the point of criticality. The amount of plutonium is not a big issue, at least not until you are talking about needing an atomic bomb for each of your enemy's tanks! Yes, that is exactly what was being considered in LA-9004. Sure, a weapon capable of producing a big yield can be adjusted to create a small yield, but it will still require the same amount of core material. That is easy. What is NOT easy is to MAKE a weapon using a tiny amount of fissile material. If they find a way to do it, using any of the approaches which have been suggested, that's great. If not, we can still have a deterrent using low kiloton yields, and other fighting equipment for deterring threats too small to waste an atomic bomb on.

Also, I didn't link to that article because I liked the author's opinion on normal nuclear deterrence. He was just presenting facts on a NEW APPROACH for creating ton yield nuclear weapons, using no fissile material at all and maybe under a gram of tritium. It looks like devices of this type are a long way off technologically.

At 8:17 pm, nige said...

You seem to be at cross purposes to whole point the neutron bomb. You think it's about making the most efficient use of tiny amounts of fissile material that is possible. It isn't. It's just about minimising the fission yield, and maximising the tritium-deuterium fusion yield!

I'm not interested in using small amounts of fissile material, like 10 grams of plutonium.

I'm not interested in designing an efficient fission implosion system - quite the opposite. It can be highly inefficient, because I only want my kilogram of fissile material to produce about 0.1% efficiency of fission.

What I am concerned about is maximising the efficient coupling of the energy to the fusion capsule. If the residual fissile material radioactivity is an issue, we could use highly enriched uranium-235, which has a much lower specific activity due to the fact that its half live is much longer than that of plutonium-239.

As a stop-gap, to halt an attack, we could simply use sub-kiloton W54 fission weapons, or bring the kiloton thermonuclear W79 neutron bomb back. This may have to happen, but the W79 is expensive in terms of tritium capsules, which have a half life of only 12 years. We make tritium by irradiating lithium inside nuclear reactors. If we could improve the coupling of energy in the W79 by supplementing the weak x-ray coupling mechanism (which is pathetic at kiloton yields, because the percentage of the energy given off as x-rays is tiny for fission weapons of small yield/mass ratio), we could improve the situation immensely.

One way to do this is use a magnetic field pulse from coils to help compress the ionized fusion capsule, by using power from a nuclear powered magnetic flux compression generator placed around the primary (fission) stage. In this scheme, as a shell of light-velocity radiation streams off the fissioning primary stage, it progressively ionizes the insulator of pre-charged induction coil placed around it, shorting it out. This pushes the existing electromagnetic field energy into an immense electromagnetic pulse, travelling out into the so-far not-yet-reached part of the induction coil, which can be fed into magnetic field generator coils placed around the fusion capsule. Thus, you can supplement x-ray ablation compression of the fusion capsule with magnetic field compression of it, once it has ionized (the expansion of an ionized capsule against magnetic field lines is resisted by a force which depends on the magnetic field strength).

If this system works, it could mean that the x-ray ionised fusion capsule's expansion may be delayed enough (by magnetic field compression) for neutrons from the fission primary stage to arrive. This could allow the replacement of tritium by lithium, because lithium could be fissioned by the neutrons in this configuration, of extended compression (normally this is not possible in neutron bombs, because of the timing mis-match; x-rays compress the fusion stage for a time span shorter than the time taken for neutrons to arrive and fission lithium to produce tritium). If only there was more interest in deterrence outside cash-strapped secret labs, we could probably make great progress.

At 9:11 pm,  Anonymous said...

Wow. Corbyn really is a Lenin wannabe. This alone is a good reason for people to be educated about the millions of people who Lenin and Stalin executed, and the Communists' key role in expanding the Cold War arms race. It is also important to see how the USSR produced nerve gas agents while claiming to be disarming. This is reminiscent of the Nazis who armed Germany secretly in the years leading up to World War Two.

Another important takeaway from the information posted here: It appears that Novichok was developed in Russia, but its chemical structure was leaked to the rest of the world over two decades ago. At this point, many governments around the world have had time to study the structure, and find the most efficient methods of producing it (or rather producing the binary precursors to it). Currently, it is no longer a secret Russian weapon, but more a Russian contribution to the types of weapons which are available. If Novichok has enough advantages over other agents, it is likely that all of NATO have created stockpiles of its precursors, or at least have the capacity to produce such stockpiles. It is even possible that some ex-Soviet satellite countries are capable of manufacturing it. At this point, the type of agent used is not a good way of identifying this as a Russian poison attack. If somebody was shot by an AK-47 (a military rifle invented in the USSR) would we have to assume that a Russian did the shooting? Not really.

Realistically, though, we DO have strong evidence to assume that the Russians did the poisoning here. Nobody else would have an incentive to attack this particular man. For the Russians, however, it would be an opportunity to make an example of a defector, and showcase their abilities to poison people stealthfully, and en masse if they wish. It is also a brazen move showing that the Russian government is willing to attack people within the borders of other countries, and is not afraid of the repercussions. Britain and the US need to show Russia that we are not afraid either. "Hard-line" negotiations and the

expulsions of diplomats are great, but they need to be backed up by preparations such as civil defense. Without these, we remain at the mercy of their army, nuclear arsenal which supposedly is being reduced, and poison gas arsenal which was supposedly non-existent.

At 9:32 am,  nige said...

"... If Novichok has enough advantages over other agents, it is likely that all of NATO have created stockpiles of its precursors, or at least have the capacity to produce such stockpiles. ..."

Thanks for your comment, although I really don't see why it is "likely" that Porton Down has prepared stockpiles of Novichok, seeing that the UK Government has a history of using disarmament agreements as an excuse to cut research funding into weapons, even countermeasures, and that their budget was cut so much after the Cold War. The idea that all NATO countries have prepared Novichok stockpiles is, in view of history and the West's obsessive enforcement of chemical weapons convention laws (ignored by Putin with contempt), just totally deluded.

There was a period like this in the mid 1930s, when the Nazis propaganda official, Dr Goebbels, was trying to "ridicule" everyone (people like Winston Churchill) who were warning of secret German rearmament. They denounced the messengers as being warmongers, Jews, capitalists, anti-German racists, and so on, and they made up fake news about any slight defences in the West (like new fighter planes to defend against German bombers, and British gas masks to defend against gas attacks) being war preparations, instead of peaceful deterrence to try to avert war. Leaders like Chamberlain then went to meet Hitler and try to negotiate peace pledges for collaboration, to prevent a war. They proved to be delusions, but at the time these "peace makers" were given applause and positive media coverage, with newspapers hailing Chamberlain as great peace maker. Because of the following WWII, that approach failed, and now we have to follow successful tactics, like those used by Reagan in helping to pave the way for a peaceful resolution to the Cold War. We need to negotiate from a position of strength, not rely on handshakes and doubletalk.

At 6:48 pm,  Anonymous said...

Nigel:

I think you should explain that not all British Labour Party members are racists who hate the Jews. Similarly, not all Nazi Party members hated the Jews. Some of them are just people who read newspapers like the Mirror and the Guardian, that censor the criticism of racists.

At 6:50 pm,  nige said...

Thanks for pointing that out. However, this blog is about defensible facts relevant to national security and is not about speculations over why people do evil things.

At 12:23 pm,  Alison Hubert said...

I find every word supporting the deterrence of WWII offensive. I find all criticism of racists in Corbyn's Labour Party fan base offensive. I read the Guardian and watch BBC news. I find it offensive that that people are being allowed to criticise anything that is wrong.

Please take down this post. Facts are dangerous to know. People would be better off living in ignorance.

At 12:24 pm,  nige said...

Dear Alison:

If you find criticisms of your delusions offensive, then rest assured that I find your rudeness offensive too.

At 2:04 pm,  Ken Livingstone defender said...

Please apologise to Ken Livingstone. Hitler protected his Jewish former commanding officer, Ernest Hess. This is in the Daily Telegraph newspaper, not the fascist Jew hating Observer, Guardian or Mirror, so it proves that Hitler was not a racist and therefore Ken isn't either:

<https://www.telegraph.co.uk/history/world-war-two/9379575/Adolf-Hitler-protected-his-Jewish-former-commanding-officer.html>

By Matthew Day7:08PM BST 05 Jul 2012

Hitler made the dramatic intervention to protect Ernst Hess, his old company commander from the Flanders trenches of the First World War, who had risen to be a judge in post-war Germany.

In a letter from August 27, 1941 to the Dusseldorf Gestapo, Heinrich Himmler, one of the architects of the Final Solution, instructed the secret police to grant Hess "the relief and the protection as per the Fuhrer's wishes".

Himmler also instructed all authorities that Hitler's old comrade in arms was not "to be in-opportuned in any way whatsoever".

The letter was unearthed in a Gestapo file on Hess by Susanne Mauss, editor of the newspaper Jewish Voice from Germany.

At 2:10 pm,  nige said...

If Hitler had protected all Jews, not just his former commander under whom Hitler won the Iron Cross First Class in WWI, then your point would be valid and I'd certainly never have criticised Ken.

But the facts are very different. Hitler had good reason to defend the man under whom he had been awarded the Iron Cross First Class in WWI. So what? That doesn't defend Ken's abusive slurs which appear to me and many others as a typical piece of Marxist incitement of hatred.

At 2:53 pm,  Uh Oh Jeremy Corbyn said...

Nigel,

If you google "effects of nuclear Weapons" this blog doesn't appear at all on the first page of results

<https://www.google.co.uk/search?q=effects+of+nuclear+weapons>

Instead, it is CND stuff and a Daily Mail article about the lying NUKEMAP by Alex Wellerstein, historian of science at the American Institute of Physics which uses unobstructed desert terrain data from Glasstone's nuclear weapons, ignoring Glasstone's warning that in modern concrete buildings in Hiroshima the median lethal range was reduced from 1.3 miles in the open to 0.12 miles inside modern city buildings. CND uses the same type of lies, as did the Marxists.

At 3:06 pm,  nige said...

The problem with criticising Dr Alex Wellerstein is that he deletes fair and honest criticisms from his blog comments while responding to complaints about his unprofessional censorship by making untrue slurs about critics. This means he is leaving only a deceptive selection of comments on his blog, which probably misinformed the Daily Mail.

I'm not responsible for Google's search engine design.

I did write a post long ago exposing the dishonesty of Dr Alex Wellerstein and received one comment from him in response (the only comment he ever made on this blog), a begging request to remove the post (mixed with a lack of comprehension of what I had written), which I did because I was delighted that he had at least bothered to make some sort of response to criticism, and because I'm not here to engage in personal arguments, but to inform people of the facts.

The reality is that the sort of people who make up lies about the effects of nuclear weapons are beyond rational discussion. They're paranoid, thin skinned, abusive bigots who manipulate and issue personal abuse against anyone with a valid criticism.

I am just sick of "discussions" over factual matters with plainly nasty bigots, and liars. If he wants to correct his blog or his Nukemap program rather than just being like a lawyer and adding a disclaimer about "uncertainties" in the notes, then I'll praise that.

There are millions of deluded liars out there and the idea that you can convey useful information to the public by exposing their deceptions is plain wrong. They just turn it from a discussion of facts into a lot of lies about personality, the old ad hominem "trick".

However, I think we should make an exception of CND's Vice-President Jeremy Corbyn, who is openly racist, who invites known racist terrorists to tea in the House of Commons.

Even then, we must keep criticisms to the facts. I've never made any personal comments, but those with a hate agenda claim otherwise because they are unable or unwilling to listen to genuine criticisms, the correction of which might help to make the world a little safer.

At 3:17 pm,  nige said...

Update/correction: I have the blog post and his response saved, and the actual issue was about Feynman, not me. Feynman was of Jewish ancestry and Dr Alex Wellerstein made an inaccurate and in my humble unprofessional (inaccurate, poorly researched) hate attack on Feynman. I submitted a polite comment to Dr Alex Wellerstein's Restricted Data blog, merely quoting Feynman correctly to set the record straight. Dr Alex Wellerstein deleted my comment, leaving his misleading claims standing, so I lost the work I had done in typing the quotation in. The next year later, I found that I had highlighted the section in pencil in a book by Feynman, and I then published a post about it on this blog, here, pointing out that censorship of this kind can lead to a culture of authoritarian fascism as occurred in the 1930s. A few minutes later, I received a comment from Dr Alex Wellerstein, a strange mixture of abuse and apology, so I deleted the post to pacify him (the issue about Feynman was actually about his work on nuclear weapons, not the effects of nuclear weapons, but it was the principle of the censorship which I had objected to). I care about trying to make the world a better place, and not upsetting people if at all possible.

At 1:08 am,  Capitalist said...

Have you read Dinesh D'Souza, "The Big Lie: Exposing the Nazi Roots of the American Left"? It exposes how communists obfuscate of the truth to the point of reversing everything. They are the racists, but they try to reflect back genuine criticisms on to the critics.

They interpret every fact using absurd conspiracy theories about Jewish capitalists. They assert false opinions about critics being racists. Marxist radicals, when questioned, just egotistically assert their contrived personal feelings are when put under pressure, e.g.

"When I hear people asking questions like that, what I comprehend is just how ignorant and racist those people are. I don't engage with that hatred,"

Said slowly, with long pauses between every other word (as Obama does), it wastes so much time that the TV producer has to move on to something else, and she gets away with it. Idiot viewers are just relieved when it moves on to something else less boring...

At 1:20 am,  nige said...

No, I haven't read that book. Arrogance is something that seems to be loved by the media nowadays. It has always been a problem. IRA terrorism sympathiser McDonnell, Corbyn's shadow chancellor, has surprised me by making an effort to appear really nice and endearing on TV. Hitler and Stalin were both reported to have a charming personal manner, however. I don't trust much to style or presentation (I was judged on my defective speech and hearing as a child), but on FACTS.

The left use moral relativism and claim that facts aren't substantial because they are always open to interpretation, immediately before hypocritically banning any interpretation other than their own flawed one. Truth is the free analysis of all the facts using the best interpretation, which can only be found by trying a very diverse array of alternative interpretations. That's the method I work on. Marxists are just intolerant, bigots.

At 7:19 am,  Anonymous said...

It's the racists in the BBC, Guardian and Mirror who are causing this tragedy by refusing to report the facts that debunk Corbyn's lies about being the world's leading anti-racist and the world's greatest peace maker. His involvement with the IRA contributed to violence by backing the terrorist's cause, not opposing terrorism. His involvement with the IRA, ISIS, Hamas, Hezbollah, and the USSR also backed terrorist causes, and in every single example, when peace has come it has been due to our brave soldiers disarming or beating the terrorists with force, not by having tea with them in the House of Commons or by attending their racist rallies.

At 7:24 am,  nige said...

Yep, the IRA peace agreement only resulted from brave British operations to disarm the terrorist IRA, the opposite of Corbyn's approach that failed, which was a repeat of Chamberlain's handshakes with Hitler applied to the IRA. In every case, Corbyn got it 100% wrong, but claimed he was the real deal. He is a nasty bigoted liar, like all members of CND. They're evil, they're issuing propaganda and fake news on weapons effects and civil defence like Richard Rhodes, and other American nukemap propaganda liars. They hate the truth and need to be exposed as evil, demented liars, who are nasty egotists, polluting popular culture with delusional manure for cash and acclaim from criminal minded thugs like terrorists.

Nigel B. Cook

At 7:41 am,  Psychologist said...

Nigel, I think you are taking the wrong approach here. You cannot expect to overturn a corrupt regime from the inside. Reform doesn't occur by discussions within a dictatorship. There is only one mode of progress against an evil dictator, revolution, whether due to many "traitors" within the system, or external force. The concept of a single opponent infiltrating an evil regime to overthrow it using rational arguments is absurd. They just see you as a traitor or whatever, and give you abuse or throw you out of their system.

You cannot reform a dictatorially evil civil defense opposing and nuclear weapons effects lying cult by nice rational arguments, by definition. You simply have to abandon efforts to inform them, accept they're criminals, and launch a revolution that will put them on the defensive. Then, remember the motto of the successful revolutionary: take no prisoners. If they pretend, like Alex, that they are being nice, they're only covering their own dirty lying backs.

At 11:01 am,  Anonymous said...

Always be abrasive to evil doers, being polite to them gives them the excuse to ignore you, to claim you are equivocal/confused or not truly committed to exposing and fighting evil lies that lead to massacres in Syria, Ukraine, etc.

At 11:08 am,  nige said...

Yes, but you and whose army? Chamberlain had, as chancellor (i.e. while in the Cabinet, prior to taking over from Baldwin who was the previous Nazi appeasing Prime Minister), limited defence spending to such low levels in 1936-8 that by the time he met Hitler three times in 1938, Britain had LOST the arms race and was STILL CONTINUING to KNOWINGLY rearm SLOWER than Hitler, thus WIDENING the gap and NOT "buying time through appeasement to rearm Britain" as he lying claimed afterwards (a lie repeated by left wing racists to this day, proving again the Nazi-Commie collaboration as it was from August 1939 to June 1941).

In other words, if you are going to be assertive, you have to be able to "take no prisoners", in the words of "Psychologist" above. Basically, corrupt bigoted racists are all powerful, which is why they are where they are.

People who think that if only the Jews had stood up to Hitler sooner, everything would have been rosy, are deluded. Like Corbyn, Hitler smugly manipulated all news of opposition to suit his own evil agenda of racism, e.g. using opposition as an excuse for further terror.

At 12:16 pm,  Anonymous said...

Thank you for the news cutting updates about the racism of the vice chair of the Campaign for Nuclear Disarmament and current labour leader Jeremy Corbyn.

What I find sickening most of all is that (ex-)Labour Peer Lord Alan Sugar is finally denouncing Corbyn using photoshopped tweets of Corbyn in a car beside Adolf Hitler.

That is so sick it's nauseating. If Lord Sugar feels Corbyn does not deserve support, he should use his power to do something useful to help humanity overcome this evil.

At 12:59 pm,  Former Labour Party voter said...

Corbyn's tactic of saying he is the world's greatest peacemaker and the world's greatest most committed anti-racist, while actually doing the complete opposite, is Hitler's and Dr Goebbels' propaganda method.

Hitler claimed he was a great guy to pacify critics into appeasement policies which led to war, because he was lying.

Stalin similarly used what George Orwell called "doublethink", e.g. reversing the meanings of words for propaganda purposes.

Peace is war, racism is anti-racism, etc. If Corbyn thinks the Jews are racists regarding Palestine, then Corbyn's "anti-racism" is actually racism.

The man is a propaganda spin doctor and a proved liar regarding his dismissal of civil defence to save lives in war zones across the world, as you have repeatedly exposed for many years on this blog.

Keep it up.

At 1:06 pm,  nige said...

Thank you, I'll try my very best.

It is heartening that some in the media are starting to investigate this subject, and are not being fooled by the lies of Richard Rhodes and other fairy tale accounts of the Cold War any more.

Let's pray there is still time.

At 1:23 pm,  Anonymous said...

Corbyn invited hate preacher Raed Salah to tea at the House of Commons and Corbyn called him "a very honoured citizen". Rael Salah had already been charged in Israel with inciting racist violence. That proves Corbyn is a racism.

Corbyn similarly met with Hamas whose charter is the terrorism and destruction of Jews. Likewise, Corbyn met with Hezbollah, another racist terrorist group.

He did nothing to oppose them, he encouraged them as he did the IRA, which he wanted to encourage to terrorise people in Northern Ireland.

Corbyn was provably paid £20,000 for similarly honouring Iran's Press TV channel with an appearance, thus effectively backing a TV station that regularly hosts Holocaust deniers.

Corbyn defended the Rev Stephen Sizer who falsely circulated lies that the Jews of Israel caused 9/11.

Corbyn admitted being a troll who used Facebook for the harassment of Jews by his support of an absurdly antisemitic painting of Jews in a mural, but he claimed he didn't look closely at the racist painting before he defended it, an "excuse" that ignores the Legal precept that

"ignorantia neminem excusat" (ignorance is no excuse).

If he didn't have time to check the racist image he was endorsing, he shouldn't have done so.

Corbyn is a "man of principle" all right: he is a man of racist principle, a man of bigoted principle, a man of intolerant hatred principle, a man of evil principle. Supporters of his terrorism of Jews should be fined if there is not the prison space available for them.

At 2:00 pm,  nige said...

4 April 2018: I just want to restate the key point in this blog post here in the comments section.

I agree 100% with Dr Alex Wellerstein (and Edward Teller) on the matter of government secrecy, which is a dictatorial threat to national security.

We need to abandon "diplomats" like Britain's bungling Foreign Secretary Boris Johnson, who makes ranting claims about Novichok WITHOUT PUBLISHING THE ACTUAL DATA HE HAS.

We need to publish all of the facts, just like Kennedy did with the "top secret" intelligence from U2 spy planes in the Cuban Missiles Crisis in October, 1962.

That is the only way to start any kind of dialogue with Russia to resolve this matter.

Keeping the facts secret was the stupid UK government policy on nuclear weapons effects and civil defence during the Cold War, which discredited both deterrence and live saving low cost countermeasures, because it allowed unopposed enemy communist propaganda (please see previous post on this blog for documentary evidence of this).

Similarly, secrecy on UK government Novichok nerve agent data is escalating a crisis.

Bloody well publish the evidence. Remember: Kennedy's decision led to the death of an American spy on 27 October 1962, U2 pilot Rudolf Anderson Jr. When a crisis is this bad, we have to risk some exposure of our intelligence gathering techniques, we cannot use official secrecy arguments to keep secret information which is so badly needed to settle this row for once and for all.

We must not publish a falsehood filled selective "dodgy dossier" like Tony Blair did to "justify" the 2002 Iraq War, but the full data we have. This country is supposed to be a free democracy, not a secretive manipulative dictatorial regime. We have spies to get information, and sometimes that data needs to be openly published, to defend freedom.

At 2:09 pm,  Anonymous said...

Porton is now reportedly denying Russia made Novichok, if the BBC is to be trusted.

Apparently, they don't want to Putin to test out all 12 warheads of his new Satan 2 missile on Porton anytime soon.

Can't blame them.

;-)

At 3:00 pm,  Corbynite said...

You have mistyped Raed Salah's name as Rael Salah. Please show this respect for racist friends of Corbyn. Then he might just spare your life when he is Prime Minister of the UK.

At 4:19 pm,  Anonymous said...

Is Corbyn going to attend a 4 hour satire of Islamic Arabs, to balance what he did to Jews?

Racism is hypocrisy, a bias in which "offense" is taken if one race is mocked but not another.

Put it like this. Trump is often rude by personality, regardless of gender or color. He is rude to women, he is rude to women, he is rude to blacks, whites, and every race. He is therefore not a sexist or racist, because he does not discriminate. He's just a tough leader.

But Jeremy Corbyn does discriminate. He is lovely to racists and has never provoked Muslims, but he hates Jews. That's the factor which counts. Racial discrimination, a terrible bias.

At 4:40 pm,  phd said...

I think there is a lot of resentment about the need to help CND nuclear weapons effects lies predominate on the internet. But government policy is exaggerate the effects and ignore civil defense to cause fear, even if that means risking millions of lives. The politicians are not aware of lies. You should write a book exposing all of the deceptions in populist propaganda on the effects of nuclear weapons. A blog is too easy to ignore, like a person shouting out information for free on a roadside. 1.7 million views is not enough. Everyone needs to know the facts, and journalists want books, not blogs, as the basis for their articles on highly controversial subjects.

At 4:45 pm,  nige said...

phd: I completed a book, "Nuclear Weapons Effects Theory" (which included test data to validate blast attenuation by damage done in a city, city skyline radiation screening including allowance for scattered radiation, etc.) in August 1990. No publisher wanted it, not because of technical details, but the whole subject of nuclear effects. They thought it was a subject only fit for official government publications, or that it would not sell enough to justify printing.

So, please, pay attention: the problem is that people like Carl Sagan and Richard Rhodes are effectively fiction writers, who have misled the public into fallacies, that can't be debunked because people aren't interested in the subject.

The situation was the same with gas and incendiary bomb firestorm fiction (lies) in the 1930s, which helped Corbyn (whoops I mean Hitler, sorry, typing error) start WWII.

At 5:59 pm,  phd said...

So you think that most people tend to prefer nuclear war to be a topic for popular fiction, not popular fact?

:-)

At 10:36 am,  Sarcastic said...

Oh, I see. Russia jointly invaded Poland with Nazis in September 1939, then Russia massacred tens of thousands of the Polish nationals for being alleged Jewish capitalists in the Polish army, and Russia invaded Finland.

But that lasted barely 2 years. In June 1941 after Hitler failed to destroy the RAF and invade Britain in Hitler's "Operation Sea Lion", he invaded Russia instead.

So you see, it was Britain which caused Russia to fight the Nazis. If Britain had been led by someone with the mindset of Corbyn, and done a "peace deal" with racists to avoid frightful war, then it would have been invaded and the Nazi troops would not have been available to invade Russia.

Therefore, Russia might have continued as a collaborator of the Nazis, and Britain might now be part of a Nazi-Russian empire, with Corbyn celebrating the end of the allegedly imperialist, capitalist Jews.

At 10:43 am,  nige said...

During the Cold War, leading anti-nuclear bigots who knew no facts about the real effects or capabilities of nuclear weapons for deterrence and the real data on survival in modern city buildings in Hiroshima and Nagasaki, and also the civil defence shelters in Hiroshima and Nagasaka and at nuclear weapon tests in the 1950s, such as "historians" like A. J. P. Taylor (a founder of anti-nuclear CND) manipulated and lied about the "arms race" causing WWI and WWII in order, deliberately, to try to abuse history for nuclear disarmament. A. J. P. Taylor is worth singling out for the newspaper articles, books, TV appearances, publicity drives, and moreover, for his teaching the current generation of historians (including Sir Martin Gilbert, et al.) at Oxford University.

These ignorant bigots abused history for an agenda of hatred towards the only proven credible deterrence of world war. They continue to do so, so hardly entrenched is the dogma in the books by people like Richard Rhodes. We've been trying on this blog to stem a tide of hatred, but it is very hard because so many evil dupes believe crap from nazis.

At 10:47 am,  A.J.P. Taylor fake history and fake news loving shit said...

But surely WWI and WWII were caused by a nuclear arms race?

Surely the wars dragged on because Britain had so many arms at the beginning of the wars that it could not deter aggression?

Surely if Corbyn had been in charge, and had disarmed Britain of nuclear weapons in 1914 and 1939, war would have been avoided?

Disarm and no aggressor will think twice about invasion and massacre. So will then get peace. ("The peace of the dead", in the words of the title of Paul Mercer's great 1987 book.)

At 10:51 am,  nige said...

Please don't publish sarcasm like that, which will just be used by liars to claim that this blog allows "confusing" comments to be published.

I will not be allowing any more of that kind of humour, because it always backfires.

We're dealing with hardened, desperate, ranting dictators who will try any excuse to cause harm, to abuse the facts, and to ignore the truth.

Thank you.

At 10:56 am,  Anonymous said...

Apologies

At 5:07 pm,  United Nations arms control expert said...

I've just seen this blog, and I am shocked by it. Your call to replace high yield countervalue warheads with 1 kiloton or subkiloton warheads on ICBMs to deter the aggressive invasions which actually start wars would end conventional wars and negate the basis of my job.

My job is based on trying to get rid of high yield warheads to end deterrence and return the world to the days of world wars, as in the examples you give of 1914 and 1939.

Your approach is to circumvent the entire mythology of the nuclear age by returning the the basic problem of deterring war in general, not just nuclear war.

I am also SHOCKED by your efforts to promote the facts about low cost civil defence to save lives in both conventional and nuclear wars, and also natural disasters where shelters are needed for survival.

You don't understand. The world has been fed the weapons effects myth of Richard Rhodes, A.J.P. Taylor, and other egotists for over a generation. They will never read or back your common sense call.

They will support the United Nations' efforts to keep killing innocent millions through propaganda.

This will keep me in my job, ensuring that suffering, violence, war, and terror continues.

Heil Hitler!

At 5:08 pm,  nige said...

Not amusing, but I'll make an exception and publish that satire. No more, please.

At 6:04 pm,  Anonymous said...

Nigel:

We can all laugh at your idea to deter conventional war using credible nuclear deterrence, 1 kt or subkiloton warheads.

That was used to deter Russian invasions in the 1950s and 1960s, using a range of tactical kiloton yield warheads that would not cause any collateral damage to adjacent civilians.

For 600 m altitude 20 kt bursts like Hiroshima, the median survival range for people in the lower floors of modern concrete buildings is only 0.12 mile or so according to Glasstone, but soldiers on the move or in tanks would stopped due to being irradiated over a wider area because the protection in them is relatively poor. There is no local fallout of concern, as in Hiroshima which was not significantly contaminated.

After these warheads were removed in the 1970s due to Western Communist agitation by Brezhnev's liars called the "World Peace Council" (a USSR front, run by Moscow), Russia was able to invade Afghanistan in December 1979 with impunity. Then Reagan ordered the W79 neutron bomb, and a host of other weapons like Cruise Missiles sited in the UK, to deter further aggression.

Russia was morally defeated by this American build up, and warmonger Gorbachev was forced into concessions on human rights and properly inspected and verified arms control in 1987.

That's the real lesson of the Cold War. It was credible, tactical nuclear weapons that "did in" the USSR, not incredible countervalue strategic weapons. Deter invasions, and you get peace. Remove that deterrent, and you get war.

At 6:08 pm,  nige said...

Yes. They deluded "arms control liars" pretend that tactical nuclear weapons "lower the nuclear threshold", whereas they actually increase it, because they deter the only proved route to nuclear warfare: conventional war!

It was conventional war in WWII that in August 1945 escalated into nuclear war (Hiroshima and Nagasaki nuclear strikes). Hence, deter conventional war with tactical nuclear weapons, and you won't get nuclear war.

This refutes the entire lying dogma of the Nazis who masquerade as "experts" on nuclear war.

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Credible nuclear deterrence of invasions and conventional wars reduce the risk of large conventional and nuclear wars occurring through escalation of invasions such as the invasion of Belgium in 1914 and the invasion of Poland in 1939, of surprise attacks like those against France in 1940 and of Russia and Pearl Harbor in 1941, Afghanistan in 1979, Kuwait in 1990, or Crimea in 2014. Contrary to irrational, pseudo-scientific propaganda, the number of nuclear weapons is smaller than the millions of conventional weapons used in large wars and the correct scaling shows that the overall effects are similar, not massively different as often claimed for political propaganda by enemies of peace. Furthermore, the greater time delay of effects from nuclear weapons over the damaged area increases the efficiency of cheap civil defence countermeasures, as compared to conventional weapons. We need credible effects of nuclear weapons for real world peace: peace through tested, proved and practical declassified deterrence and countermeasures against collateral damage. Credible deterrence through simple, effective protection against concentrated and dispersed invasions and aerial attacks. Discussions of the facts as opposed to inaccurate, misleading lies of the "disarm or be annihilated" political dogma variety. Hiroshima and Nagasaki anti-nuclear propaganda debunked by the hard facts. Walls not wars. Walls bring people together by stopping divisive terrorists. In conclusion, credible nuclear deterrence of conventional war offers a beautiful opportunity to create a peaceful world, free from fear peddling, ranting dictators. The only oppositions you will meet will come from authoritarian obsessed fear peddling myth makers. If they can't tell the truth and face the facts, why listen to

them? Please see our post on the need to *deter not only direct threats from nuclear attacks but also conventional wars and invasions* that can *escalate* into nuclear wars (as proved by the use of nuclear weapons in WWII, for example, after they were developed during the war itself and did not trigger or provoke the war), linked [here](#), [here](#), [here](#), and [here](#), [here](#), [here](#), and the true scaling law equivalence between a few thousand nuclear weapons and the several million tons of small conventional weapons in a non-nuclear world war as proved by our post [summarising key points in Herman Kahn's much-abused call for credible deterrence, *On Thermonuclear War*, linked here](#). Peace comes through tested, proved and practical declassified countermeasures against the effects of nuclear weapons, chemical weapons and conventional weapons. Credible deterrence to end invasions and wars comes through simple, effective protection against invasions like low yield tactical weapons and walls, and civil defence against collateral damage. Peace comes through discussions of the facts as opposed to inaccurate, misleading lies of the "disarm or be annihilated" political dogma variety, which are designed to exploit fear to close down criticisms of errors in mainstream orthodoxy. In particular, please see the [post linked here on EMP results from an actual Russian 300 kt test at 290 km altitude over unwarned civilian infrastructure in Kazakhstan on 22 October 1962, which caused no injuries or deaths whatsoever \(contrary to all of Jeremy Corbyn and CND style lying propaganda that any use of nuclear weapons on civilians would automatically kill millions\), but shut down the communications and power supply lines! This is not secret, but does not make newspaper headlines to debunk CND style dogmas on the alleged incredibility of nuclear deterrence.](#)

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Hiroshima's air raid shelters were unoccupied because Japanese Army officers were having breakfast when B29s were detected far away, says Yoshie Oka, the operator of the Hiroshima air raid sirens on 6 August 1945...

-

In a sample of 1,881 burns cases in Hiroshima, only 17 (or 0.9 percent) were due to ignited clothing and 15 (or 0.7%) were due to the firestorm flames...

-

Dr Harold L. Brode's new book, Nuclear Weapons in ...

-

800 war migrants drowned on 22 April by EU policy:...

-

Photographed fireball shielding by cloud cover in ...

-

Nuclear weapons effects "firestorm" and "nuclear w...

-

Proved 97.5% survival in completely demolished houses ...

How to achieve peace through tested, proved and practical declassified countermeasures against the effects of nuclear weapons, chemical weapons and conventional weapons. Credible deterrence through simple, effective protection against invasions and collateral damage. Discussions of the facts as opposed to inaccurate, misleading lies of the "disarm or be annihilated" political

dogma variety. Hiroshima and Nagasaki anti-nuclear propaganda debunked by the hard facts. Walls not wars. Walls bring people together by stopping attacks by "divide and rule" style divisive terrorists, contrary to simplistic Vatican propaganda.

"There has never been a war yet which, if the facts had been put calmly before the ordinary folk, could not have been prevented." - British Foreign Secretary Ernest Bevin, House of Commons Debate on Foreign Affairs, Hansard, 23 November 1945, column 786 (unfortunately secret Cabinet committees called "democracy" for propaganda purposes have not been quite so successful in preventing war). Protection is needed against collateral civilian damage and contamination in conventional, chemical and nuclear attack, with credible low yield clean nuclear deterrence against conventional warfare which, in reality (not science fiction) costs far more lives. Anti scientific media, who promulgate and exploit terrorism for profit, censor (1) vital, effective civil defense knowledge and (2) effective, safe, low yield air burst clean weapons like the Mk54 and W79 which deter conventional warfare and escalation, allowing arms negotiations from a position of strength. This helped end the Cold War in the 1980s. Opposing civil defense and nuclear weapons that really deter conventional war, is complacent and dangerous.

War and coercion dangers have not stemmed from those who openly attack mainstream mistakes, but from those who camouflage themselves as freedom fighters to ban such free criticism itself, by making the key facts seem taboo, without even a proper debate, let alone financing research into unfashionable alternatives. Research and education in non-mainstream alternatives is needed before an unprejudiced debate, to establish all the basic facts for a real debate. "Wisdom itself cannot flourish, nor even truth be determined, without the give and take of debate and criticism." – Robert Oppenheimer (quotation from the H-bomb TV debate hosted by Eleanor Roosevelt, 12 February 1950).

"Apologies for freedom? I can't handle this! ... Deal from strength or get crushed every time ... Freedom demands liberty everywhere. I'm thinking, you see, it's not so easy. But we have to stand up tall and answer freedom's call!" – Freedom Kids

CONVENTIONAL WARS HAVE KILLED TENS OF MILLIONS OF PEOPLE, NUCLEAR WEAPONS CAN RAPIDLY DETER THIS REAL THREAT TO PEACE WITH MINIMAL CASUALTIES. 'During the critical period 8-15 February [1968], the U.S. command realized [that conventional] bombing was not sufficiently effective. ... The air campaign dropped over 110,000 tons of bombs and napalm on the area around Khe Sanh during the 77-day siege ... the most heavily bombed target in the history of conventional warfare.' – W. C. Yengst, S. J. Lukasik, and M. A. Jensen, *Nuclear Weapons that went to War*, SAID report DSWA-TR-97-25, September 1998 (quoted in the 2015 book by the secret *Capabilities of Nuclear Weapons* editor, Dr Harold L. Brode, *Nuclear Weapons in the Cold War*, page 287). [British Nuclear Test Civil Defence Research](#)

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SECRETDR. PENNEY'S DRAFT BROADCAST

Recorded: 30 October 1952

13

When the planning began, a lot of thought was given to deciding which type of explosion would provide information and experience of the greatest value. Purely scientific measurements are most easily made when the weapon is placed at the top of a high tower, but there were other weighty considerations. The Civil Defence authorities in this country badly needed more data about atomic explosions and, accordingly, the test was planned to get as much novel information as possible for Civil Defence. The decision was made to explode the weapon in a ship moored near land, thus simulating an explosion in a

CHANGE 1

Field Manual No 101-31-1

NUCLEAR WEAPONS EMPLOYMENT DOCTRINE AND PROCEDURES

Radius of vulnerability (emergency risk criterion: 5% combat ineffectiveness)

Figure 54. Radii of Vulnerability.

| Yield (KT) | PERSONNEL (LL) IN— (Based on Governing Effect) | | | | |
|--|---|---------------|------|-------|---------------|
| | Open | Open Foxholes | APCs | Tanks | Earth Shelter |
| Radii listed are distances at which a 5 percent incidence of effect occurs. HOB used is $60W^{1/3}$ meters. | | | | | |
| (Distances are in meters) | | | | | |
| 0.1 | 700 | 600 | 600 | 500 | 300 |
| 1 | 1200 | 900 | 900 | 800 | 500 |
| 10 | 2200 | 1200 | 1200 | 1250 | 800 |

**Protective factor = ratio of
area of effect in the open, to
area of effect for shelter**

Example: for 300 kt, the protective factor of open foxholes is equal to $(14,000)^2 / (2,100)^2 = 44$.

| Open | Open Foxholes | APCs | Tanks | Earth Shelter | Yield (KT) |
|------|---------------|------|-------|---------------|------------|
| 1 | 1.36 | 1.36 | 1.96 | 5.44 | 0.1 |
| 1 | 1.78 | 1.78 | 2.25 | 5.76 | 1 |
| 1 | 4.04 | 4.04 | 4.55 | 12.4 | 10 |

| | | | | | | | | | | | |
|-----|-------|------|------|------|------|---|------|------|------|------|-----|
| 10 | 3200 | 1300 | 1300 | 1200 | 300 | 1 | 0.00 | 0.00 | 0.00 | 12.0 | 10 |
| 20 | 4000 | 1500 | 1450 | 1400 | 1000 | 1 | 7.11 | 7.61 | 8.16 | 16.0 | 20 |
| 100 | 8000 | 1900 | 1800 | 1800 | 1400 | 1 | 17.7 | 19.8 | 19.8 | 32.7 | 100 |
| 200 | 12000 | 2000 | 1900 | 1900 | 1500 | 1 | 36.0 | 39.9 | 39.9 | 64.0 | 200 |
| 300 | 14000 | 2100 | 1950 | 1950 | 1600 | 1 | 44.4 | 51.5 | 51.5 | 76.6 | 300 |

Calculation of the injury-averting protective factors by simple open foxholes and earth shelters, as a function of weapon yield. Most countermeasures are relatively ineffective against tactical nuclear weapons (due to the predominating neutron radiation effect at 0.1 kt yield), but are extremely effective against strategic nuclear weapons with yields of 100, 200 and 300 kt (protective factors of 44 to 77).

The definition of protective factor used here is the factor by which casualties numbers are reduced.

Richard P. Feynman, 'This Unscientific Age', in *The Meaning of It All*, Penguin Books, London, 1998, pages 106-9:

'Now, I say if a man is absolutely honest and wants to protect the populace from the effects of radioactivity, which is what our scientific friends often say they are trying to do, then he should work on the biggest number, not on the smallest number, and he should try to point out that the [natural cosmic] radioactivity which is absorbed by living in the city of Denver is so much more serious [than the smaller doses from nuclear explosions] ... that all the people of Denver ought to move to lower altitudes.'

"If a man reads or hears a criticism of anything in which he has an interest, watch ... if he shows concern with any question except 'is it true?' he thereby reveals that his own attitude is unscientific. Likewise if ... he judges an idea not on its merits but with reference to the author of it; if he criticizes it as 'heresy'; if he argues that authority must be right because it is authority ... The path of truth is paved with critical doubt, and lighted by the spirit of objective enquiry... the majority of people have resented what seems in retrospect to have been purely matter of fact ... nothing has aided the persistence of falsehood, and the evils resulting from it, more than the unwillingness of good people to admit the truth ... the tendency continues to be shocked by natural comment, and to hold certain things too 'sacred' to think about. ... How rarely does one meet anyone whose first reaction to anything is to ask: 'is it true?' Yet, unless that is a man's natural reaction, it shows that truth is not uppermost in his mind, and unless it is, true progress is unlikely."

- Sir Basil Henry Liddell Hart, *Why Don't We Learn from History?*, PEN Books, 1944; revised edition, Allen and Unwin, 1972.

Civil defense countermeasures, to be taken seriously by the population, require the publication of solid facts with the scientific evidence to support those facts against political propaganda to the contrary. Secrecy over the effects of nuclear weapons tests does not hinder plutonium and missile production by rogue states, but it does hinder civil defense countermeasures, by permitting lying political propaganda to go unopposed (see linked post, here).

Terrorists successfully prey on the vulnerable. The political spreading of lies concerning threats and the alleged 'impossibility' of all countermeasures, terrorizing the population in order to 'justify' supposedly pro-peace disarmament policies in the 1920s-1930s, resulted in the secret rearmament of fascist states which were terrorizing the Jews and others, eventually leading to World War II.

Political exaggerations about nuclear weapons effects today:

(1) encourage terrorist states and other groups to secretly invest in such weapons to use either for political intimidation or for future use against countries which have no countermeasures, and

(2) falsely dismiss, in the eyes of the media and the public, cheap relatively effective countermeasures like civil defense and ABM.

Therefore, doom-mongering media lies *make us vulnerable to the proliferation threat* today in two ways, just as they led to both world wars:

(1) Exaggerations of offensive technology and a down-playing of simple countermeasures such as trenches, encouraged belligerent states to start World War I in the false belief that modern technology implied overwhelming firepower which would terminate the war quickly on the basis of offensive preparedness: if the facts about simple trench countermeasures against shelling and machine guns during the American Civil War had been properly understood, it would have been recognised by Germany that a long war based on munitions production and logistics would be necessary, and war would have been seen to be likely to lead to German defeat against countries with larger overseas allies and colonies that could supply munitions and the other resources required to win a long war.

(2) Exaggerations of aerial bombardment technology after World War I led to disarmament 'supported by' false claims that it was impossible to have any defense against a perceived threat of instant annihilation from thousands of aircraft carrying gas and incendiary bombs, encouraging fascists to secretly rearm in order to successfully take advantage of the fear and vulnerability caused by this lying political disarmament propaganda.

Contrived dismissal of civil defense by Marxist "Cambridge Scientists Anti-War Group" bigots: (a) appeased war-mongering enemies, and (b) maximised war mortality rates. Idealism kills. Super effective, fully proof-tested, cheap civil defense makes nuclear deterrence credible to stop conventional war devastation by avoiding collateral damage, tit-for-tat retaliation and escalation.

Historically, it has been proved that having weapons is not enough to guarantee a reasonable measure of safety from terrorism and rogue states; countermeasures are also needed, both to make any deterrent credible and to negate or at least mitigate the effects of a terrorist attack. Some people who wear seatbelts die in car crashes; some people who are taken to hospital in ambulances, even in peace-time, die. Sometimes, lifebelts and lifeboats cannot save lives at sea. This lack of a 100% success rate in saving lives doesn't disprove the value of everyday precautions or of hospitals and medicine. Hospitals don't lull motorists into a false sense of security, causing them to drive faster and cause more accidents. Like-minded 'arguments' against ABM and civil defense are similarly vacuous.

'As long as the threat from Iran persists, we will go forward with a missile system that is cost-effective and proven. If the Iranian threat is eliminated, we will have a stronger basis for security, and the driving force for missile-defense construction in Europe will be removed.'

- President Obama, Prague Castle, Czech Republic, 4 April 2009.

Before 9/11, Caspar Weinberger was quizzed by skeptical critics on the BBC News program *Talking Point*, Friday, May 4, 2001: *Caspar Weinberger quizzed on new US Star Wars ABM plans:*

'The [ABM] treaty was in 1972 ... The theory ... supporting the ABM treaty [which prohibits ABM, thus making nations vulnerable to terrorism] ... that it will prevent an arms race ... is perfect nonsense because we have had an arms race all the time we have had the ABM treaty, and we have seen the greatest increase in proliferation of nuclear weapons that we have ever had. ... So the ABM treaty preventing an arms race is total nonsense. ...

'You have to understand that without any defences whatever you are very vulnerable. It is like saying we don't like chemical warfare - we don't like gas attacks - so we are going to give up and promise not to have any defences ever against them and that of course would mean then we are perfectly safe. ...

'The Patriot was not a failure in the Gulf War - the Patriot was one of the things which defeated the Scud and in effect helped us win the Gulf War. One or two of the shots went astray but that is true of every weapon system that has ever been invented. ...

'The fact that a missile defence system wouldn't necessarily block a suitcase bomb is certainly not an argument for not proceeding with a missile defence when a missile that hits can wipe out hundreds of thousands of lives in a second. ...

'The curious thing about it is that missile defence is not an offensive weapon system - missile defence cannot kill anybody. Missile defence can help preserve and protect your people and our allies, and the idea that you are somehow endangering people by having

a defence strikes me almost as absurd as saying you endanger people by having a gas mask in a gas attack. ...

‘President Bush said that we were going ahead with the defensive system but we would make sure that nobody felt we had offensive intentions because we would accompany it by a unilateral reduction of our nuclear arsenal. It seems to me to be a rather clear statement that proceeding with the missile defence system would mean fewer arms of this kind.

‘You have had your arms race all the time that the ABM treaty was in effect and now you have an enormous accumulation and increase of nuclear weapons and that was your arms race promoted by the ABM treaty. Now if you abolish the ABM treaty you are not going to get another arms race - *you have got the arms already there* - and if you accompany the missile defence construction with the unilateral reduction of our own nuclear arsenal then it seems to me you are finally getting some kind of inducement to reduce these weapons.’

Before the ABM system is in place, and afterwards if ABM fails to be 100% effective in an attack, or is bypassed by terrorists using a bomb in a suitcase or in a ship, civil defense is required and can be effective at saving lives:

‘Paradoxically, the more damaging the effect, that is the farther out its lethality stretches, the more can be done about it, because in the last fall of its power it covers vast areas, where small mitigations will save very large numbers of people.’

- Peter Laurie, *Beneath the City Streets: A Private Inquiry into the Nuclear Preoccupations of Government*, Penguin, 1974.

‘The purpose of a book is to save people [the] time and effort of digging things out for themselves. ... we have tried to leave the reader with something tangible – what a certain number of calories, roentgens, etc., means in terms of an effect on the human being. ... we must think of the people we are writing for.’

– Dr Samuel Glasstone, DSc, letter dated 1 February 1957 to Colonel Dent L. Lay, Chief, Weapons Effects Division, U.S. Armed Forces Special Weapons Project, Washington, D.C., pages 2 and 4, concerning the preparation of *The Effects of Nuclear Weapons*.



Glasstone and Dolan stated in *The Effects of Nuclear Weapons* (1977), Table 12.17 on page 546, that the median distance in Hiroshima for survival after 20 days was 0.12 miles for people in concrete buildings and 1.3 miles for people standing outdoors. Therefore the median distances for survival in modern city buildings and in the open differed by a factor of 11 for Hiroshima; the difference in areas was thus a factor of 11^2 or about 120. Hence, taking cover in modern city buildings reduces the casualty rates and the risks of being killed by a factor of 120 for Hiroshima conditions, contrary to popular media presented political propaganda that civil defence is hopeless. This would reduce 120,000 casualties to 1,000 casualties.

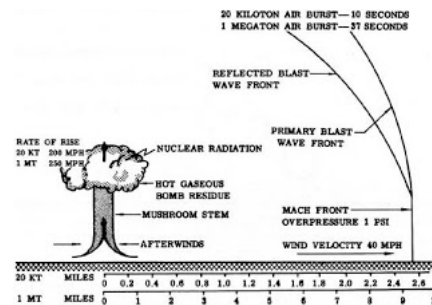
From Dr Glasstone's *Effects of Nuclear Weapons* (1962/64 ed., page 631): ‘At distances between 0.3 and 0.4 mile from ground zero in Hiroshima the average survival rate, for at least 20 days after the nuclear explosion, was less than 20 percent. Yet in two reinforced concrete office buildings, at these distances, almost 90 percent of the nearly 800 occupants survived more than 20 days, although some died later of radiation injury. Furthermore, of approximately 3,000 school students who were in the open and unshielded within a mile of ground zero at Hiroshima, about 90 percent were dead or missing after the explosion. But of nearly 5,000 students in the same zone who were shielded in one way or another, only 26 percent were fatalities. ... survival in Hiroshima was possible in buildings at such distances that the overpressure in the open was 15 to 20 pounds per square inch. ... it is evident ... that the area over which protection could be effective in saving lives is roughly eight to ten times as great as that in which the chances of survival are small.’

Lord Mayhew, House of Lords debate on Civil Defence (General Local Authority Functions) Regulations, Hansard, vol. 444, cc. 523-49, 1 November 1983: '... if there had been effective civil defence at Hiroshima probably thousands of lives would have been saved and much human suffering would have been avoided. There is no question about it. ...'

Since the 1977 update by Glasstone and Dolan, extensive new updates to EM-1 for a further revised edition of *The Effects of Nuclear Weapons* have not actually been published with unlimited public distribution, due to President Carter's 1979 executive order which transferred responsibility for civil defense from the jurisdiction of the U.S. Department of Defense's Defense Civil Preparedness Agency to the new agency (which is not an Agency of the U.S. Department of Defense, and is not concerned with the analysis of nuclear weapons test effects data), the Federal Emergency Management Agency. However, the February 1997 U.S. Department of Defense's Defense Special Weapons Agency 0602715H RDT&E Budget Item Justification Sheet (R-2 Exhibit) states that a revision of Glasstone and Dolan's unclassified *Effects of Nuclear Weapons* was budgeted for 1997-9:

"FY 1997 Plans: ... Provide text to update Glasstone's book, *The Effects of Nuclear Weapons*, the standard reference for nuclear weapons effects. ... Update the unclassified textbook entitled, *The Effects of Nuclear Weapons*. ... Continue revision of Glasstone's book, *The Effects of Nuclear Weapons*, the standard reference for nuclear weapons effects. ... FY1999 Plans ... Disseminate updated *The Effects of Nuclear Weapons*."

The new publications are either classified or unclassified with limited distribution restrictions (e.g., Bridgman's *Introduction to the Physics of Nuclear Weapons Effects*, which includes several chapters on nuclear weapons design to enable initial radiation outputs to be calculated precisely) which prevents up-to-date basic nuclear effects information to justify civil defense against the latest nuclear threats from being widely disseminated; the books are printed for use only by government agencies. The problem with this approach is that widespread public understanding of the best information for civil defense countermeasures is prevented.



'The evidence from Hiroshima indicates that blast survivors, both injured and uninjured, in buildings later consumed by fire [caused by the blast overturning charcoal braziers used for breakfast in inflammable wooden houses filled with easily ignitable bamboo furnishings and paper screens] were generally able to move to safe areas following the explosion. Of 130 major buildings studied by the U.S. Strategic Bombing Survey ... 107 were ultimately burned out ... Of those suffering fire, about 20 percent were burning after the first half hour. The remainder were consumed by fire spread, some as late as 15 hours after the blast. This situation is not unlike the one our computer-based fire spread model described for Detroit.'

- Defense Civil Preparedness Agency, U.S. Department of Defense, *DCPA Attack Environment Manual, Chapter 3: What the Planner Needs to Know About Fire Ignition and Spread*, report CPG 2-1A3, June 1973, Panel 27.

The Effects of the Atomic Bomb on Hiroshima, Japan, US Strategic Bombing Survey, Pacific Theatre, report 92, volume 2 (May 1947, secret):

Volume one, page 14:

"... the city lacked buildings with fire-protective features such as automatic fire doors and automatic sprinkler systems", and pages 26-28 state the heat flash in Hiroshima was only:

“... capable of starting primary fires in exposed, easily combustible materials such as dark cloth, thin paper, or dry rotted wood exposed to direct radiation at distances usually within 4,000 feet of the point of detonation (AZ).”

Volume two examines the firestorm and the ignition of clothing by the thermal radiation flash in Hiroshima:

Page 24:

“Scores of persons throughout all sections of the city were questioned concerning the ignition of clothing by the flash from the bomb. ... Ten school boys were located during the study who had been in school yards about 6,200 feet east and 7,000 feet west, respectively, from AZ [air zero]. These boys had flash burns on the portions of their faces which had been directly exposed to rays of the bomb. The boys’ stories were consistent to the effect that their clothing, apparently of cotton materials, ‘smoked,’ but did not burst into flame. ... a boy’s coat ... started to smoulder from heat rays at 3,800 feet from AZ.” [Contrast this to the obfuscation and vagueness in Glasstone, *The Effects of Nuclear Weapons*!]

Page 88:

“Ignition of the City. ... Only directly exposed surfaces were flash burned. Measured from GZ, flash burns on wood poles were observed at 13,000 feet, granite was roughened or spalled by heat at 1,300 feet, and vitreous tiles on roofs were blistered at 4,000 feet. ... six persons who had been in reinforced-concrete buildings within 3,200 feet of air zero stated that black cotton blackout curtains were ignited by radiant heat ... dark clothing was scorched and, in some cases, reported to have burst into flame from flash heat [although as the 1946 unclassified USSBS report admits, most immediately beat the flames out with their hands without sustaining injury, because the clothing was not drenched in gasoline, unlike peacetime gasoline tanker road accident victims]

“... but a large proportion of over 1,000 persons questioned was in agreement that a great majority of the original fires was started by debris falling on kitchen charcoal fires, by industrial process fires, or by electric short circuits. Hundreds of fires were reported to have started in the centre of the city within 10 minutes after the explosion. Of the total number of buildings investigated [135 buildings are listed] 107 caught fire, and in 69 instances, the probable cause of initial ignition of the buildings or their contents was as follows: (1) 8 by direct radiated heat from the bomb (primary fire), (2) 8 by secondary sources, and (3) 53 by fire spread from exposed [wooden] buildings.”

‘It is true that the Soviets have tested nuclear weapons of a yield higher than that which we thought necessary, but the 100-megaton bomb of which they spoke two years ago does not and will not change the balance of strategic power. The United States has chosen, deliberately, to concentrate on more mobile and more efficient weapons, with lower but entirely sufficient yield ...’ - President John F. Kennedy in his television broadcast to the American public, 26 July 1963.

‘During World War II many large cities in England, Germany, and Japan were subjected to terrific attacks by high-explosive and incendiary bombs. Yet, when proper steps had been taken for the protection of the civilian population and for the restoration of services after the bombing, there was little, if any, evidence of panic. It is the purpose of this book to state the facts concerning the atomic bomb, and to make an objective, scientific analysis of these facts. It is hoped that as a result, although it may not be feasible completely to allay fear, it will at least be possible to avoid panic.’

– Dr George Gamow (the big bang cosmologist), Dr Samuel Glasstone, DSc (Executive Editor of the book), and Professor Joseph O. Hirschfelder, *The Effects of Atomic Weapons*, Chapter 1, p. 1, Paragraph 1.3, U.S. Department of Defense, September 1950.

‘The consequences of a multiweapon nuclear attack would certainly be grave ... Nevertheless, recovery should be possible if plans exist and are carried out to restore social order and to mitigate the economic disruption.’

- Philip J. Dolan, editor of *Nuclear Weapons Employment* FM 101-31 (1963), *Capabilities of Nuclear Weapons* DNA-EM-1 (1972), and *The Effects of Nuclear Weapons* (1977), Stanford Research Institute, Appendix A of the U.S. National Council on Radiological protection (NCRP) symposium *The Control of Exposure to the Public of Ionising Radiation in the Event of Accident or Attack*, 1981.

‘Suppose the bomb dropped on Hiroshima had been 1,000 times as powerful ... It could not have killed 1,000 times as many people, but at most the entire population of Hiroshima ... [regarding the hype about various nuclear "overkill" exaggerations] there is enough water in the oceans to drown everyone ten times.’

- Professor Brian Martin, PhD (physics), 'The global health effects of nuclear war', *Current Affairs Bulletin*, Vol. 59, No. 7, December 1982, pp. 14-26.

In 1996, half a century after the nuclear detonations, data on cancers from the Hiroshima and Nagasaki survivors was published by D. A. Pierce et al. of the Radiation Effects Research Foundation, RERF (*Radiation Research* vol. 146 pp. 1-27; *Science* vol. 272, pp. 632-3) for 86,572 survivors, of whom 60% had received bomb doses of over 5 mSv (or 500 millirem in old units) suffering 4,741 cancers of which only 420 were due to radiation, consisting of 85 leukemias and 335 solid cancers.

‘Today we have a population of 2,383 [radium dial painter] cases for whom we have reliable body content measurements. . . . All 64 bone sarcoma [cancer] cases occurred in the 264 cases with more than 10 Gy [1,000 rads], while no sarcomas appeared in the 2,119 radium cases with less than 10 Gy.’

- Dr Robert Rowland, Director of the Center for Human Radiobiology, *Bone Sarcoma in Humans Induced by Radium: A Threshold Response?*, Proceedings of the 27th Annual Meeting, European Society for Radiation Biology, Radioprotection colloquies, Vol. 32CI (1997), pp. 331-8.

Zbigniew Jaworowski, 'Radiation Risk and Ethics: Health Hazards, Prevention Costs, and Radiophobia', *Physics Today*, April 2000, pp. 89-90:

‘... it is important to note that, given the effects of a few seconds of irradiation at Hiroshima and Nagasaki in 1945, a threshold near 200 mSv may be expected for leukemia and some solid tumors. [Sources: UNSCEAR, *Sources and Effects of Ionizing Radiation*, New York, 1994; W. F. Heidenreich, et al., *Radiat. Environ. Biophys.*, vol. 36 (1999), p. 205; and B. L. Cohen, *Radiat. Res.*, vol. 149 (1998), p. 525.] For a protracted lifetime natural exposure, a threshold may be set at a level of several thousand millisieverts for malignancies, of 10 grays for radium-226 in bones, and probably about 1.5-2.0 Gy for lung cancer after x-ray and gamma irradiation. [Sources: G. Jaikrishan, et al., *Radiation Research*, vol. 152 (1999), p. S149 (for natural exposure); R. D. Evans, *Health Physics*, vol. 27 (1974), p. 497 (for radium-226); H. H. Rossi and M. Zaider, *Radiat. Environ. Biophys.*, vol. 36 (1997), p. 85 (for radiogenic lung cancer).] The hormetic effects, such as a decreased cancer incidence at low doses and increased longevity, may be used as a guide for estimating practical thresholds and for setting standards. ...

‘Though about a hundred of the million daily spontaneous DNA damages per cell remain unrepaired or misrepaired, apoptosis, differentiation, necrosis, cell cycle regulation, intercellular interactions, and the immune system remove about 99% of the altered cells. [Source: R. D. Stewart, *Radiation Research*, vol. 152 (1999), p. 101.] ...

‘[Due to the Chernobyl nuclear accident in 1986] as of 1998 (according to UNSCEAR), a total of 1,791 thyroid cancers in children had been registered. About 93% of the youngsters have a prospect of full recovery. [Source: C. R. Moir and R. L. Telander, *Seminars in Pediatric Surgery*, vol. 3 (1994), p. 182.] ... The highest average thyroid doses in children (177 mGy) were accumulated in the Gomel region of Belarus. The highest incidence of thyroid cancer (17.9 cases per 100,000 children) occurred there in 1995, which means that the rate had increased by a factor of about 25 since 1987.

‘This rate increase was probably a result of improved screening [not radiation!]. Even then, the incidence rate for occult thyroid cancers was still a thousand times lower than it was for occult thyroid cancers in nonexposed populations (in the US, for example, the rate is 13,000 per 100,000 persons, and in Finland it is 35,600 per 100,000 persons). Thus, given the prospect of improved diagnostics, there is an enormous potential for detecting yet more [fictitious] "excess" thyroid cancers. In a study in the US that was performed during the period of active screening in 1974-79, it was determined that the incidence rate of malignant and other thyroid nodules was greater by 21-fold than it had been in the pre-1974 period. [Source: Z. Jaworowski, *21st Century Science and Technology*, vol. 11 (1998), issue 1, p. 14.]’

‘Professor **Edward Lewis** used data from four independent populations exposed to radiation to demonstrate that the incidence of leukemia was linearly related to the accumulated dose of radiation. ... Outspoken scientists, including Linus Pauling, used **Lewis**’s risk estimate to inform the public about the danger of nuclear fallout by estimating the number of leukemia deaths that would be caused by the test detonations. In May of 1957 **Lewis**’s analysis of the radiation-induced human leukemia data was published as a lead article in Science magazine. In June he presented it before the Joint Committee on Atomic Energy of the US Congress.’ – Abstract of thesis by Jennifer Caron, *Edward Lewis and Radioactive Fallout: the Impact of Caltech Biologists Over Nuclear Weapons Testing in the 1950s and 60s*, Caltech, January 2003.

Dr John F. Loutit of the Medical Research Council, Harwell, England, in 1962 wrote a book called Irradiation of Mice and Men (University of Chicago Press, Chicago and London), discrediting the pseudo-science from geneticist **Edward Lewis** on pages 61, and 78-79:

‘... Mole [R. H. Mole, *Brit. J. Radiol.*, v32, p497, 1959] gave different groups of mice an integrated total of 1,000 r of X-rays over a period of 4 weeks. But the dose-rate - and therefore the radiation-free time between fractions - was varied from 81 r/hour intermittently to 1.3 r/hour continuously. The incidence of leukemia varied from 40 per cent (within 15 months of the start of irradiation) in the first group to 5 per cent in the last compared with 2 per cent incidence in irradiated controls. ...

‘What **Lewis** did, and which I have not copied, was to include in his table another group - spontaneous incidence of leukemia (Brooklyn, N.Y.) - who are taken to have received only natural background radiation throughout life at the very low dose-rate of 0.1-0.2 rad per year: the best estimate is listed as 2×10^{-6} like the others in the table. But the value of 2×10^{-6} was not calculated from the data as for the other groups; it was merely adopted. By its adoption and multiplication with the average age in years of Brooklyners - 33.7 years and radiation dose per year of 0.1-0.2 rad - a mortality rate of 7 to 13 cases per million per year due to background radiation was deduced, or some 10-20 per cent of the observed rate of 65 cases per million per year. ...

‘All these points are very much against the basic hypothesis of **Lewis** of a linear relation of dose to leukemic effect irrespective of time. Unhappily it is not possible to claim for **Lewis**’s work as others have done, “It is now possible to calculate - within narrow limits - how many deaths from leukemia will result in any population from an increase in fall-out or other source of radiation” [Leading article in *Science*, vol. 125, p. 963, 1957]. This is just wishful journalese.

‘The burning questions to me are not what are the numbers of leukemia to be expected from atom bombs or radiotherapy, but what is to be expected from natural background Furthermore, to obtain estimates of these, I believe it is wrong to go to [1950s inaccurate, dose rate effect ignoring, data from] atom bombs, where the radiations are qualitatively different [i.e., including effects from neutrons] and, more important, the dose-rate outstandingly different.’

Samuel Glasstone and Philip J. Dolan, *The Effects of Nuclear Weapons*, 3rd ed., 1977, pp. 611-3:

‘From the earlier studies of radiation-induced mutations, made with fruitflies [by Nobel Laureate Hermann J. Muller and other geneticists who worked on plants, who falsely hyped their insect and plant data as valid for mammals like humans during the June 1957 U.S. Congressional Hearings on fallout effects], it appeared that the number (or frequency) of mutations in a given population ... is proportional to the total dose ... More recent experiments with mice, however, have shown that these conclusions need to be revised, at least for mammals. [*Mammals are biologically closer to humans, in respect to DNA repair mechanisms, than short-lived insects whose life cycles are too small to have forced the evolutionary development of advanced DNA repair mechanisms, unlike mammals that need to survive for decades before reproducing.*] When exposed to X-rays or gamma rays, the mutation frequency in these animals has been found to be dependent on the exposure (or dose) rate ...

‘At an exposure rate of 0.009 roentgen per minute [0.54 R/hour], the total mutation frequency in female mice is indistinguishable from the spontaneous frequency. [Emphasis added.] **There thus seems to be an exposure-rate threshold below which radiation-induced mutations are absent** ... with adult female mice ... a delay of at least seven weeks between exposure to a substantial dose of radiation, either neutrons or gamma rays, and conception causes the mutation frequency in the offspring to drop almost to zero. ...

recovery in the female members of the population would bring about a substantial reduction in the 'load' of mutations in subsequent generations.'

George Bernard Shaw cynically explains groupthink brainwashing bias:

'We cannot help it because we are so constituted that we always believe finally what we wish to believe. The moment we want to believe something, we suddenly see all the arguments for it and become blind to the arguments against it. The moment we want to disbelieve anything we have previously believed, we suddenly discover not only that there is a mass of evidence against, but that this evidence was staring us in the face all the time.'

From the essay titled 'What is Science?' by Professor Richard P. Feynman, presented at the fifteenth annual meeting of the National Science Teachers Association, 1966 in New York City, and published in *The Physics Teacher*, vol. 7, issue 6, 1968, pp. 313-20:

'... great religions are dissipated by following form without remembering the direct content of the teaching of the great leaders. In the same way, it is possible to follow form and call it science, but that is pseudo-science. In this way, we all suffer from the kind of tyranny we have today in the many institutions that have come under the influence of pseudoscientific advisers.'

'We have many studies in teaching, for example, in which people make observations, make lists, do statistics, and so on, but these do not thereby become established science, established knowledge. They are merely an imitative form of science analogous to the South Sea Islanders' airfields - radio towers, etc., made out of wood. The islanders expect a great airplane to arrive. They even build wooden airplanes of the same shape as they see in the foreigners' airfields around them, but strangely enough, their wood planes do not fly. The result of this pseudoscientific imitation is to produce experts, which many of you are. ... you teachers, who are really teaching children at the bottom of the heap, can maybe doubt the experts. As a matter of fact, I can also define science another way: Science is the belief in the ignorance of experts.'

Richard P. Feynman, 'This Unscientific Age', in *The Meaning of It All*, Penguin Books, London, 1998, pages 106-9:

'Now, I say if a man is absolutely honest and wants to protect the populace from the effects of radioactivity, which is what our scientific friends often say they are trying to do, then he should work on the biggest number, not on the smallest number, and he should try to point out that the [natural cosmic] radioactivity which is absorbed by living in the city of Denver is so much more serious [than the smaller doses from nuclear explosions] ... that all the people of Denver ought to move to lower altitudes.'

Feynman is *not* making a point about low level radiation effects, but about the politics of ignoring the massive natural background radiation dose, while provoking hysteria over much smaller measured fallout pollution radiation doses. Why is the anti-nuclear lobby so concerned about banning nuclear energy - which is not possible even in principle since most of our nuclear radiation is from the sun and from supernova debris contaminating the Earth from the explosion that created the solar system circa 4,540 million years ago - when they could cause much bigger radiation dose reductions to the population by concentrating on the bigger radiation source, natural background radiation. It is possible to shield natural background radiation by the air, e.g. by moving the population of high altitude cities to lower altitudes where there is more air between the people and outer space, or banning the use of high-altitude jet aircraft. The anti-nuclear lobby, as Feynman stated back in the 1960s, didn't crusade to reduce the bigger dose from background radiation. Instead they chose to argue against the *much smaller* doses from fallout pollution. Feynman's argument is still today falsely interpreted as a political statement, when it is actually exposing pseudo-science and countering political propaganda. It is still ignored by the media. It has been pointed out by Senator Hickenlooper on page 1060 of the May-June 1957 U.S. Congressional Hearings before the Special Subcommittee on Radiation of the Joint Committee on Atomic Energy, *The Nature of Radioactive Fallout and Its Effects on Man*:

'I presume all of us would earnestly hope that we never had to test atomic weapons ... but by the same token I presume that we want to save thousands of lives in this country every year and we could just abolish the manufacture of [road accident causing] automobiles ...'

Dihydrogen monoxide is a potentially very dangerous chemical containing hydrogen and oxygen which has caused numerous severe burns by scalding and deaths by drowning, contributes to the greenhouse effect, accelerates corrosion and rusting of many metals, and contributes to the erosion of our natural landscape: 'Dihydrogen monoxide (DHMO) is colorless, odorless, tasteless, and kills uncounted thousands of people every year. Most of these deaths are caused by accidental inhalation of DHMO, but the dangers of dihydrogen monoxide do not end there. Prolonged exposure to its solid form causes severe tissue damage. Symptoms of DHMO ingestion can include excessive sweating and urination, and possibly a bloated feeling, nausea, vomiting and body electrolyte imbalance. For those who have become dependent, DHMO withdrawal means certain death.'

From the site for the petition against dihydrogen monoxide: 'Please sign this petition and help stop This Invisible Killer. Get the government to do something now. ... Contamination Is Reaching Epidemic Proportions! Quantities of dihydrogen monoxide have been found in almost every stream, lake, and reservoir in America today. But the pollution is global, and the contaminant has even been found in Antarctic ice. DHMO has caused millions of dollars of property damage in the Midwest, and recently California.'

A recent example of the pseudoscientific radiation 'education' masquerading as science that Feynman (quoted above) objected to in the 1960s was published in 2009 in an article called 'The proportion of childhood leukaemia incidence in Great Britain that may be caused by natural background ionizing radiation' in *Leukemia*, vol. 23 (2009), pp. 770–776, which falsely asserts - in contradiction to the evidence that the no-threshold model is *contrary* to Hiroshima and Nagasaki data: 'Risk models based primarily on studies of the Japanese atomic bomb survivors imply that low-level exposure to ionizing radiation, including ubiquitous natural background radiation, also raises the risk of childhood leukaemia. Using two sets of recently published leukaemia risk models and estimates of natural background radiation red-bone-marrow doses received by children, about 20% of the cases of childhood leukaemia in Great Britain are predicted to be attributable to this source.' The authors of this pseudoscience which is the opposite of the facts are R. Wakeford (Dalton Nuclear Institute, University of Manchester, Manchester, UK), G. M. Kendall (Childhood Cancer Research Group, Oxford, UK), and M. P. Little (Department of Epidemiology and Public Health, Imperial College, London, UK). It is disgusting and sinful that the facts about childhood leukemia are being lied on so blatantly for non-scientific purposes, and it is to be hoped that these leukemia investigators will either correct their errors or alternatively be banned from using scientific literature to promote false dogma for deception until they mend the error of their ways and repent their sins in this matter.

Protein P53, discovered only in 1979, is encoded by gene TP53, which occurs on human chromosome 17. P53 also occurs in other mammals including mice, rats and dogs. P53 is one of the proteins which continually repairs breaks in DNA, which easily breaks at body temperature: the DNA in each cell of the human body suffers at least two single strand breaks every second, and one double strand (i.e. complete double helix) DNA break occurs at least once every 2 hours (5% of radiation-induced DNA breaks are double strand breaks, while 0.007% of spontaneous DNA breaks at body temperature are double strand breaks)! Cancer occurs when several breaks in DNA happen to occur by chance at nearly the same time, giving several loose strand ends at once, which repair proteins like P53 then repair incorrectly, causing a mutation which can be proliferated somatically. This cannot occur when only one break occurs, because only two loose ends are produced, and P53 will reattach them correctly. But if low-LET ionising radiation levels are increased to a certain extent, causing more single strand breaks, P53 works faster and is able deal with faster breaks as they occur, so that multiple broken strand ends do not arise. This prevents DNA strands being repaired incorrectly, and prevents cancer - a result of mutation caused by faults in DNA - from arising. Too much radiation of course overloads the P53 repair mechanism, and then it cannot repair breaks as they occur, so multiple breaks begin to appear and loose ends of DNA are wrongly connected by P53, causing an increased cancer risk.

1. DNA-damaging free radicals are equivalent to a source of sparks which is always present naturally.
2. Cancer is equivalent the fire you get if the sparks are allowed to ignite the gasoline, i.e. if the free radicals are allowed to damage DNA without the damage being repaired.
3. Protein P53 is equivalent to a fire suppression system which is constantly damping out the sparks, or repairing the damaged DNA so that cancer doesn't occur.

In this way of thinking, the 'cause' of cancer will be down to a failure of a DNA repairing enzyme like protein P53 to repair the damage.

Dr Jane Orient, 'Homeland Security for Physicians', *Journal of American Physicians and Surgeons*, vol. 11, number 3, Fall 2006, pp. 75-9:

'In the 1960s, a group of activist physicians called Physicians for Social Responsibility (PSR) undertook to "educate the medical profession and the world about the dangers of nuclear weapons," beginning with a series of articles in the *New England Journal of Medicine*. [Note that journal was publishing information for anti-civil defense propaganda back in 1949, e.g. the article in volume 241, pp. 647-53 of *New England Journal of Medicine* which falsely suggests that civil defense in nuclear war would be hopeless because a single burned patient in 1947 with 40% body area burns required 42 oxygen tanks, 36 pints of plasma, 40 pints of whole blood, 104 pints of fluids, 4,300 m of gauze, 3 nurses and 2 doctors. First, only unclothed persons in direct line of sight without shadowing can get 40% body area burns from thermal radiation, second, duck and cover offers protection in a nuclear attack warning, and G. V. LeRoy had already published, two years earlier, in *J.A.M.A.*, volume 134, 1947, pp. 1143-8, that less than 5% of burns in Hiroshima and Nagasaki were caused by building and debris fires. In medicine it is always possible to expend vast resources on patients who are fatally injured. In a mass casualty situation, doctors should not give up just because they don't have unlimited resources; as at Hiroshima and Nagasaki, they would need to do their best with what they have.] On its website, www.psr.org, the group boasts that it "led the campaign to end atmospheric nuclear testing." With this campaign, the linear no-threshold (LNT) theory of radiation carcinogenesis became entrenched. It enabled activists to calculate enormous numbers of potential casualties by taking a tiny risk and multiplying it by the population of the earth. As an enduring consequence, the perceived risks of radiation are far out of proportion to actual risks, causing tremendous damage to the American nuclear industry. ... Efforts to save lives were not only futile, but unethical: Any suggestion that nuclear war could be survivable increased its likelihood and was thus tantamount to warmongering, PSR spokesmen warned. ...

'For the mindset that engendered and enables this situation, which jeopardizes the existence of the United States as a nation as well as the lives of millions of its citizens, some American physicians and certain prestigious medical organizations bear a heavy responsibility.

'Ethical physicians should stand ready to help patients to the best of their ability, and not advocate sacrificing them in the name of a political agenda. Even very basic knowledge, especially combined with simple, inexpensive advance preparations, could save countless lives.'

Dr Theodore B. Taylor, *Proceedings of the Second Interdisciplinary Conference on Selected Effects of a General War*, DASIAC Special Report 95, July 1969, vol. 2, DASA-2019-2, AD0696959, page 298 (also linked here):

'I must just say that as far as I'm concerned I have had some doubts about whether we should have had a civil defense program in the past. I have no doubt whatsoever now, for this reason, that I've seen ways in which the deterrent forces can fail to hold things off, so that no matter what our national leaders do, criminal organizations, what have you, groups of people over which we have no control whatsoever, can threaten other groups of people.'

This point of Taylor is the key fact on the morality. Suppose we disarm and abandon nuclear power. That won't stop fallout from a war, terrorists, or a foreign reactor blast from coming. Civil defence knowledge is needed. Even when America has ABM, it will be vulnerable to wind carried fallout. No quantity of pacifist hot air will protect people against radiation.

Charles J. Hitch and Roland B. McKean of the RAND Corporation in their 1960 book *The Economics of Defense in the Nuclear Age*, Harvard University Press, Massachusetts, pp. 310-57:

'With each side possessing only a small striking force, a small amount of cheating would give one side dominance over the other, and the incentive to cheat and prepare a preventative attack would be strong ... With each side possessing, say, several thousand missiles, a vast amount of cheating would be necessary to give one side the ability to wipe out the other's striking capability. ... the more extensive a disarmament agreement is, the smaller the force that a violator would have to hide in order to achieve complete

domination. Most obviously, “the abolition of the weapons necessary in a general or ‘unlimited’ war” would offer the most insuperable obstacles to an inspection plan, since the violator could gain an overwhelming advantage from the concealment of even a few weapons.’

Disarmament after World War I caused the following problem which led to World War II (reported by Winston S. Churchill in the London Daily Express newspaper of November 1, 1934):

‘Germany is arming secretly, illegally and rapidly. A reign of terror exists in Germany to keep secret the feverish and terrible preparations they are making.’

British Prime Minister Thatcher's address to the United Nations General Assembly on disarmament on 23 June 1982, where she pointed out that in the years since the nuclear attacks on Hiroshima and Nagasaki, 10 million people had been killed by 140 non-nuclear conflicts:

‘The fundamental risk to peace is not the existence of weapons of particular types. It is the disposition on the part of some states to impose change on others by resorting to force against other nations ... Aggressors do not start wars because an adversary has built up his own strength. They start wars because they believe they can gain more by going to war than by remaining at peace.’

J. D. Culshaw, the then Director of the U.K. Home Office Scientific Advisory Branch, stated in his article in the Scientific Advisory Branch journal *Fission Fragments*, September 1972 (issue No. 19), classified 'Restricted':

'Apart from those who don't want to know or can't be bothered, there seem to be three major schools of thought about the nature of a possible Third World War ...

* 'The first group think of something like World War II but a little worse ...

* '... the second of World War II but very much worse ...

* 'and the third group think in terms of a catastrophe ...

'When the Armageddon concept is in favour, the suggestion that such problems exist leads to "way out" research on these phenomena, and it is sufficient to mention a new catastrophic threat [e.g., 10 years later this was done by Sagan with "nuclear winter" hype, which turned out to be fake because modern concrete cities can't produce firestorms like 1940s wooden-built areas of Hamburg, Dresden and Hiroshima] to stimulate research into the possibilities of it arising. The underlying appeal of this concept is that if one could show that the execution of all out nuclear, biological or chemical warfare would precipitate the end of the world, no one but a mad man would be prepared to initiate such a war. [However, as history proves, plenty of mad men end up gaining power and leading countries into wars.]'

J. K. S. Clayton, then Director of the U.K. Home Office Scientific Advisory Branch, stated in his introduction, entitled *The Challenge - Why Home Defence?*, to the 1977 Home Office Scientific Advisory Branch *Training Manual for Scientific Advisers*:

'Since 1945 we have had nine wars - in Korea, Malaysia and Vietnam, between China and India, China and Russia, India and Pakistan and between the Arabs and Israelis on three occasions. We have had confrontations between East and West over Berlin, Formosa and Cuba. There have been civil wars or rebellions in no less than eleven countries and invasions or threatened invasions of another five. Whilst it is not suggested that all these incidents could have resulted in major wars, they do indicate the aptitude of mankind to resort to a forceful solution of its problems, sometimes with success. ...'

It is estimated that Mongol invaders exterminated 35 million Chinese between 1311-40, without modern weapons. Communist Chinese killed 26.3 million dissenters between 1949 and May 1965, according to detailed data compiled by the Russians on 7 April 1969. The Soviet communist dictatorship killed 40 million dissenters, mainly owners of small farms, between 1917-59. Conventional (non-nuclear) air raids on Japan killed 600,000 during World War II. The single incendiary air raid on Tokyo on 10 March 1945 killed 140,000 people (more than the total for nuclear bombs on Hiroshima and Nagasaki combined) at much less than the \$2 billion

expense of the Hiroshima and Nagasaki nuclear bombs! Non-nuclear air raids on Germany during World War II killed 593,000 civilians. The argument that the enemy will continue stocking megaton fallout weapons if we go to cleaner weapons is irrelevant for deterrence, since we're not planning to start war, just to credibly deter invasions. You should not try to lower your standards of warfare to those of your enemy to appease groupthink taboos, or you will end up like Britain's leaders in the 1930s, trying to collaborate with fascists for popular applause.

House of Lords debate *Nuclear Weapons: Destructive Power*, published in Hansard, 14 June 1988:

Lord Hailsham of Saint Marylebone: 'My Lords, if we are going into the question of lethality of weapons and seek thereby to isolate the nuclear as distinct from the so-called conventional range, is there not a danger that the public may think that Vimy, Passchendaele and Dresden were all right—sort of tea parties—and that nuclear war is something which in itself is unacceptable?'

Lord Trefgarne: 'My Lords, the policy of making Europe, or the rest of the world, safe for conventional war is not one that I support.'

House of Commons debate *Civil Defence* published in Hansard, 26 October 1983:

Mr. Bill Walker (Tayside, North): 'I remind the House that more people died at Stalingrad than at Hiroshima or Nagasaki. Yet people talk about fighting a conventional war in Europe as if it were acceptable. One rarely sees demonstrations by the so-called peace movement against a conventional war in Europe, but it could be nothing but ghastly and horrendous. The casualties would certainly exceed those at Stalingrad, and that cannot be acceptable to anyone who wants peace'

On 29 October 1982, Thatcher stated of the Berlin Wall: 'In every decade since the war the Soviet leaders have been reminded that their pitiless ideology only survives because it is maintained by force. But the day comes when the anger and frustration of the people is so great that force cannot contain it. Then the edifice cracks: the mortar crumbles ... one day, liberty will dawn on the other side of the wall.'

On 22 November 1990, she said: 'Today, we have a Europe ... where the threat to our security from the overwhelming conventional forces of the Warsaw Pact has been removed; where the Berlin Wall has been torn down and the Cold War is at an end. These immense changes did not come about by chance. They have been achieved by strength and resolution in defence, and by a refusal ever to be intimidated.'

'The case for civil defence stands regardless of whether a nuclear deterrent is necessary or not. ... Even if the U.K. were not itself at war, we would be as powerless to prevent fallout from a nuclear explosion crossing the sea as was King Canute to stop the tide.' - U.K. Home Office leaflet, *Civil Defence*, 1982.

'... peace cannot be guaranteed absolutely. Nobody can be certain, no matter what policies this or any other Government were to adopt, that the United Kingdom would never again be attacked. Also we cannot tell what form such an attack might take. Current strategic thinking suggests that if war were to break out it would start with a period of conventional hostilities of uncertain duration which might or might not escalate to nuclear conflict. ... while nuclear weapons exist there must always be a chance, however small, that they will be used against us [like gas bombs in World War II]. ... as a consequence of war between other nations in which we were not involved fall out from nuclear explosions could fall on a neutral Britain. ... conventional war is not the soft option that is sometimes suggested. It is also too easily forgotten that in World War II some 50 million people died and that conventional weapons have gone on killing people ever since 1945 without respite.' - - The Minister of State, Scottish Office (Lord Gray of Contin), House of Lords debate on Civil Defence (General Local Authority Functions) Regulations, Hansard, vol. 444, cc. 523-49, 1 November 1983.

'All of us are living in the light and warmth of a huge hydrogen bomb, 860,000 miles across and 93 million miles away, which is in a state of continuous explosion.' - Dr Isaac Asimov.

'Dr Edward Teller remarked recently that the origin of the earth was somewhat like the explosion of the atomic bomb...' - Dr Harold C. Urey, *The Planets: Their Origin and Development*, Yale University Press, New Haven, 1952, p. ix.

‘But compared with a supernova a hydrogen bomb is the merest trifle. For a supernova is equal in violence to about a million million million hydrogen bombs all going off at the same time.’ – Sir Fred Hoyle (1915-2001), *The Nature of the Universe*, Pelican Books, London, 1963, p. 75.

‘In fact, physicists find plenty of interesting and novel physics in the environment of a nuclear explosion. Some of the physical phenomena are valuable objects of research, and promise to provide further understanding of nature.’ – Dr Harold L. Brode, The RAND Corporation, ‘Review of Nuclear Weapons Effects,’ *Annual Review of Nuclear Science*, Volume 18, 1968, pp. 153-202.

‘It seems that similarities do exist between the processes of formation of single particles from nuclear explosions and formation of the solar system from the debris of a 4×10^{28} megatons of TNT equivalent, type Ia supernova explosion. We may be able to learn much more about the origin of the earth, by further investigating the process of radioactive fallout from the nuclear weapons tests.’ – Dr Paul K. Kuroda (1917-2001), University of Arkansas, ‘Radioactive Fallout in Astronomical Settings: Plutonium-244 in the Early Environment of the Solar System,’ pages 83-96 of *Radionuclides in the Environment: A Symposium Sponsored By the Division of Nuclear Chemistry and Technology At the 155th Meeting of the American Chemical Society, San Francisco, California, April 1-3, 1968*, edited by Symposium Chairman Dr Edward C. Freiling (1922-2000) of the U.S. Naval Radiological Defense Laboratory, Advances in Chemistry Series No. 93, American Chemical Society, Washington, D.C., 1970.

Dr Paul K. Kuroda (1917-2001) in 1956 correctly predicted the existence of water-moderated natural nuclear reactors in flooded uranium ore seams, which were discovered in 1972 by French physicist Francis Perrin in three ore deposits at Oklo in Gabon, where sixteen sites operated as natural nuclear reactors with self-sustaining nuclear fission 2,000 million years ago, each lasting several hundred thousand years, averaging 100 kW. The radioactive waste they generated remained in situ for a period of 2,000,000,000 years without escaping. They were discovered during investigations into why the U-235 content of the uranium in the ore was only 0.7171% instead of the normal 0.7202%. Some of the ore, in the middle of the natural reactors, had a U-235 isotopic abundance of just 0.440%. Kuroda's brilliant paper is entitled, 'On the Nuclear Physical Stability of the Uranium Minerals', published in the *Journal of Chemical Physics*, vol. 25 (1956), pp. 781–782 and 1295–1296.

A type Ia supernova explosion, always yielding 4×10^{28} megatons of TNT equivalent, results from the critical mass effect of the collapse of a white dwarf as soon as its mass exceeds 1.4 solar masses due to matter falling in from a companion star. The degenerate electron gas in the white dwarf is then no longer able to support the pressure from the weight of gas, which collapses, thereby releasing enough gravitational potential energy as heat and pressure to cause the fusion of carbon and oxygen into heavy elements, creating massive amounts of radioactive nuclides, particularly intensely radioactive nickel-56, but half of all other nuclides (including uranium and heavier) are also produced by the 'R' (rapid) process of successive neutron captures by fusion products in supernovae explosions. Type Ia supernovae occur typically every 400 years in the Milky Way galaxy. On 4 July 1054, Chinese astronomers observed in the sky (without optical instruments) the bright supernova in the constellation Taurus which today is still visible as the Crab Nebula through telescopes. The Crab Nebula debris has a diameter now of 7 light years and is still expanding at 800 miles/second. The supernova debris shock wave triggers star formation when it encounters hydrogen gas in space by compressing it and seeding it with debris; bright stars are observed in the Orion Halo, the 300 light year diameter remains of a supernova. It is estimated that when the solar system was forming 4,540 million years ago, a supernova occurred around 100 light years away, and the heavy radioactive debris shock wave expanded at 1,000 miles/second. Most of the heavy elements including iron, silicon and calcium in the Earth and people are the stable end products of originally radioactive decay chains from the space burst fallout of a 7×10^{26} megatons thermonuclear explosion, created by fusion and successive neutron captures after the implosion of a white dwarf; a supernova explosion.

How would a 10^{55} megaton hydrogen bomb explosion differ from the big bang? Ignorant answers biased in favour of curved spacetime (ignoring quantum gravity!) abound, such as claims that explosions can't take place in 'outer space' (disagreeing with the facts from nuclear space bursts by Russia and America in 1962, not to mention natural supernova explosions in space!) and that explosions produce sound waves in air by definition! There are indeed major differences in the nuclear reactions between the big bang and a nuclear bomb. But it is helpful to notice the solid physical fact that implosion systems suggest the mechanism of gravitation: in implosion, TNT is well-known to produce an inward force on a bomb core, but Newton's 3rd law says there is an

equal and opposite reaction force *outward*. In fact, you can't have a radially outward force without an inward reaction force! It's the rocket principle. The rocket accelerates (with force $F = ma$) *forward* by virtue of the recoil from accelerating the exhaust gas (with force $F = -ma$) in the *opposite* direction! Nothing massive accelerates without an equal and opposite reaction force. Applying this *fact* to the measured $6 \times 10^{-10} \text{ ms}^{-2} \sim Hc$ cosmological acceleration of matter radially outward from observers in the universe which was predicted accurately in 1996 and later observationally discovered in 1999 (by Perlmutter, et al.), we find an outward force $F = ma$ and inward reaction force by the 3rd law. The inward force allows quantitative predictions, and is mediated by gravitons, predicting gravitation in a checkable way (unlike string theory, which is just a landscape of 10^{500} different perturbative theories and so can't make any falsifiable predictions about gravity). So it seems as if nuclear explosions do indeed provide helpful analogies to natural features of the world, and the mainstream lambda-CDM model of cosmology - with its force-fitted unobserved *ad hoc* speculative 'dark energy' - ignores and sweeps under the rug major quantum gravity effects which increase the physical understanding of particle physics, particularly force unification and the relation of gravitation to the existing electroweak $SU(2) \times U(1)$ section of the Standard Model of fundamental forces.

Richard Lieu, Physics Department, University of Alabama, 'Lambda-CDM cosmology: how much suppression of credible evidence, and does the model really lead its competitors, using all evidence?', <http://arxiv.org/abs/0705.2462>.

Even Einstein grasped the possibility that general relativity's lambda-CDM model is at best just a classical approximation to quantum field theory, at the end of his life when he wrote to Besso in 1954:

'I consider it quite possible that physics cannot be based on the [classical differential equation] field principle, i.e., on continuous structures. In that case, nothing remains of my entire castle in the air, [non-quantum] gravitation theory included ...'

'Science is the organized skepticism in the reliability of expert opinion.' - Professor Richard P. Feynman (quoted by Professor Lee Smolin, *The Trouble with Physics*, Houghton-Mifflin, New York, 2006, p. 307).

'The expression of dissenting views may not seem like much of a threat to a powerful organization, yet sometimes it triggers an amazingly hostile response. The reason is that a single dissenter can puncture an illusion of unanimity. ... Among those suppressed have been the engineers who tried to point out problems with the Challenger space shuttle that caused it to blow up. More fundamentally, suppression is a denial of the open dialogue and debate that are the foundation of a free society. Even worse than the silencing of dissidents is the chilling effect such practices have on others. For every individual who speaks out, numerous others decide to play it safe and keep quiet. More serious than external censorship is the problem of self-censorship.'

— Professor Brian Martin, University of Wollongong, 'Stamping Out Dissent', Newsweek, 26 April 1993, pp. 49-50

In 1896, Sir James Mackenzie-Davidson asked Wilhelm Röntgen, who discovered X-rays in 1895: 'What did you think?' Röntgen replied: 'I did not think, I investigated.' The reason? Cathode ray expert J. J. Thomson in 1894 saw glass fluorescence far from a tube, but due to prejudice (expert opinion) he avoided investigating that X-ray evidence! 'Science is the organized skepticism in the reliability of expert opinion.' - Richard Feynman, in Lee Smolin, *The Trouble with Physics*, Houghton-Mifflin, 2006, p. 307.

Mathematical symbols in this blog: your computer's browser needs access to standard character symbol sets to display Greek symbols for mathematical physics. If you don't have the symbol character sets installed, the density symbol ' ρ ' (*Rho*) will appear as 'r' and the ' π ' (*Pi*) symbol will as 'p', causing confusion with the use of 'r' for radius and 'p' for momentum in formulae. This problem exists with Mozilla Firefox 3, but not with Microsoft Explorer which displays Greek symbols.

About Me



Name: nige

Currently designing secure active server page (ASP) front ends for client SQL databases. In 1982 I began programming in basic, and at college learned Fortran while a physics undergraduate a decade later. Afterwards, I switched from mainstream physics and mathematical education to part-time programming student, while working in a series of jobs

including four years in credit control. [www.quantumfieldtheory.org](http://glasstone.blogspot.co.uk/2015/07/capabilities-of-nuclear-weapons.html/) <http://glasstone.blogspot.co.uk/2015/07/capabilities-of-nuclear-weapons.html/> <http://www.math.columbia.edu/~woit/wordpress/?p=273#comment-5322>.
<http://www.math.columbia.edu/~woit/wordpress/?p=353&cpag=1#comment-8728>.
<http://www.math.columbia.edu/~woit/wordpress/?p=215#comment-4082>.

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From 1945-62, America tested 216 nuclear weapons in the atmosphere, totalling 154 megatons, with a mean yield of 713 kilotons

From 1949-62, Russia tested 214 nuclear weapons in the atmosphere, totalling 281 megatons, with a mean yield of 1.31 megatons

From 1952-8, Britain tested 21 nuclear weapons in the atmosphere, totalling 10.8 megatons, with a mean yield of 514 kilotons

From 1960-74, France tested 46 nuclear weapons in the atmosphere, totalling 11.4 megatons, with a mean yield of 248 kilotons

From 1964-80, China tested 23 nuclear weapons in the atmosphere, totalling 21.5 megatons, with a mean yield of 935 kilotons

In summary, from 1945-80, America, Russia, Britain, France and China tested 520 nuclear weapons in the atmosphere, totalling 478.7 megatons, with a mean yield of 921 kilotons

Mean yield of the 5,192 nuclear warheads and bombs in the deployed Russian nuclear stockpile as of January 2009: 0.317 Mt. Total yield: 1,646 Mt.

Mean yield of the 4,552 nuclear warheads and bombs in the deployed U.S. nuclear stockpile as of January 2007: 0.257 Mt. Total yield: 1,172 Mt.

For diffraction damage where damage areas scale as the two-thirds power of explosive yield, this stockpile's area damage potential can be compared to the 20,000,000 conventional bombs of 100 kg size (2 megatons of TNT equivalent total *energy*) dropped on Germany during World War II: (Total nuclear bomb blast diffraction damaged ground *area*)/(Total conventional blast diffraction damaged ground *area* to Germany during World War II) = $[4,552 \times (0.257 \text{ Mt})^{2/3}] / [20,000,000 \times (0.0000001 \text{ Mt})^{2/3}] = 1,840/431 = 4.3$. Thus, although the entire U.S. stockpile has a TNT *energy* equivalent to 586 times that of the 2 megatons of conventional bombs dropped on Germany in World War II, it is only capable of causing 4.3 times as much diffraction type damage area, because *any given amount of explosive energy is far more efficient when distributed over many small explosions than in a single large explosion! Large explosions are inefficient because they cause unintended collateral damage, wasting energy off the target area and injuring or damaging unintended targets!*

In a controlled sample of 36,500 survivors, 89 people got leukemia over a 40 year period, above the number in the unexposed control group. (Data: *Radiation Research*, volume 146, 1996, pages 1-27.) Over 40 years, in 36,500 survivors monitored, there were 176 leukemia deaths which is 89 more than the control (unexposed) group got naturally. There were 4,687 other cancer deaths, but that was merely 339 above the number in the control (unexposed) group, so this is statistically a much smaller rise than the leukemia result. Natural leukemia rates, which are very low in any case, were increased by 51% in the irradiated survivors, but other cancers were merely increased by just 7%. Adding all the cancers together, the total was 4,863 cancers (virtually all natural cancer, nothing whatsoever to do with radiation), which is just 428 more than the unexposed control group. Hence, the total increase over the natural cancer rate due to bomb exposure was only 9%, spread over a period of 40 years. There was no increase whatsoever in genetic malformations.

There should be a note here about how unnatural radioactive pollution is (not) in space: the earth's atmosphere is a radiation shield equivalent to being protected behind a layer of water 10 metres thick. This reduces the cosmic background radiation by a factor of 100 of what it would be without the earth's atmosphere. Away from the largely uninhabited poles, the Earth's magnetic field also protects us against charged cosmic radiations, which are deflected and end up spiralling around the magnetic field at high altitude, in the Van Allen trapped radiation belts. *On the Moon, for example, there is no atmosphere or significant magnetic field so the natural*

background radiation exposure rate at solar minimum is 1 milliRoentgen per hour (about 10 microSieverts/hour) some 100 times that on the Earth (0.010 milliRoentgen per hour or about 0.10 microSieverts/hour). The Apollo astronauts visiting the Moon wore dosimeters and they received an average of 275 milliRoentgens (about 2.75 milliSieverts) of radiation (well over a year's exposure to natural background at sea level) in over just 19.5 days. It is a lot more than that during a solar flare, which is one of the concerns for astronauts to avoid (micrometeorites are another concern in a soft spacesuit).

The higher up you are above sea level, the less of the atmosphere there is between you and space, so the less shielding you have to protect you from the intense cosmic space radiations (emitted by thermonuclear reactors we call 'stars', as well as distant supernovae explosions). At sea level, the air above you constitutes a radiation shield of 10 tons per square metre or the equivalent of having a 10 metres thick water shield between you and outer space. As you go up a mountain or up in an aircraft, the amount of atmosphere between you and space decreases, thus radiation levels increase with altitude because there is less shielding. *The normal background radiation exposure rate shoots up by a factor of 20, from 0.010 to 0.20 milliRoentgens per hour, when any airplane ascends from sea level to 36,000 feet cruising altitude.* (The now obsolete British Concorde supersonic transport used to maintain radiation-monitoring equipment so that it could drop to lower-altitude flight routes if excessive cosmic radiation due to solar storms were detected.) Flight aircrew get more radiation exposure than many nuclear industry workers at nuclear power plants. Residents of the high altitude city of Denver get 100 milliRoentgens (about 1 milliSievert) more annual exposure than a resident of Washington, D.C., but the mainstream anti-radiation cranks don't campaign for the city to be shut to save kids radiation exposure, for mountain climbing to be banned, etc.!

1994 revised Introduction to Kearny's Nuclear War Survival Skills, by Dr Edward Teller, January 14, 1994:

'If defense is neglected these weapons of attack become effective. They become available and desirable in the eyes of an imperialist dictator, even if his means are limited. Weapons of mass destruction could become equalizers between nations big and small, highly developed and primitive, if defense is neglected. If defense is developed and if it is made available for general prevention of war, weapons of aggression will become less desirable. Thus defense makes war itself less probable. ... One psychological defense mechanism against danger is to forget about it. This attitude is as common as it is disastrous. It may turn a limited danger into a fatal difficulty.'

Advice of Robert Watson-Watt (Chief Scientist on the World War II British Radar Project, defending Britain against enemy attacks): 'Give them the third best to go on with, the second best comes too late, the best never comes.'

From Wikipedia (a source of groupthink): 'Groupthink is a type of thought exhibited by group members who try to minimize conflict and reach consensus without critically testing, analyzing, and evaluating ideas. Individual creativity, uniqueness, and independent thinking are lost in the pursuit of group cohesiveness, as are the advantages of reasonable balance in choice and thought that might normally be obtained by making decisions as a group. During groupthink, members of the group avoid promoting viewpoints outside the comfort zone of consensus thinking. A variety of motives for this may exist such as a desire to avoid being seen as foolish, or a desire to avoid embarrassing or angering other members of the group. Groupthink may cause groups to make hasty, irrational decisions, where individual doubts are set aside, for fear of upsetting the group's balance.'

Links

- ◆ [Google News](#)
- ◆ [Dr Carl E. Baum's EMP theory and interaction notes](#)
- ◆ [The Atomic Heritage Foundation](#)
- ◆ [Radiation Effects Research Foundation lumps data together to cover up benefits of low dose radiation in Hiroshima and Nagasaki Life Span Study!](#)
- ◆ [DTRA \(Defense Threat Reduction Agency\) Nuclear testing histories \(PDF files\)](#)
- ◆ [Samuel Glasstone and Philip J. Dolan](#)
- ◆ [Carl F. Miller's fallout research at nuclear tests](#)

- ◆ British Home Office Scientific Advisory Branch
- ◆ Samuel Cohen's book about the collateral damage averting, invasion-detering neutron bomb he invented, and the lying political attacks he endured as a result
- ◆ Jerry Emanuelson's review of EMP facts, including the direct dependence of the EMP on the Earth's natural magnetic field strength at the burst location
- ◆ Essays by 1950s American nuclear weapon effects test (and neutron bomb design) experts, discrediting anti-civil defence propaganda
- ◆ Neutron bomb inventor Samuel Cohen's 2006 book on the history of the neutron bomb, the most moral weapon ever invented due to its purely military deterrent capabilities, and the pseudo-scientific propaganda war he has had to endure from the enemies of deterrence
- ◆ Karl-Ludvig Grønhaug's EMP reports page with useful PDF downloads on prompt EMP and MHD-EMP measurements from nuclear tests (Norwegian language)
- ◆ Colonel Derek L. Duke's factual book on nuclear weapons accidents, *Chasing Loose Nukes, as told to Fred Dungan*
- ◆ The H-Bomb and the birth of the Universe: 'For 100 Million years after time began, the universe was dark as pitch. The clouds of hydrogen condensed into huge nuclear fireballs. That moment-when the universe first lit up-was the moment of creation that matters...'
- ◆ American *EMP Interaction* manual: comprehensive theory of both the EMP source mechanism and the EMP pick-up in cables and antenna by electromagnetic inductance (30 MB PDF file)
- ◆ British Mission to Japan, *The Effects of the Atomic Bombs at Hiroshima and Nagasaki*, H. M. Stationery Office, London, 1946 (high quality 42.5 MB pdf file).
- ◆ 1950 edition (high quality 82.7 MB PDF file) of U.S. Department of Defense book *The Effects of Atomic Weapons*
- ◆ 1957 edition (high quality 90.8 MB PDF file) of subsequently deleted sections on nuclear tests of civil defense countermeasures from U.S. Department of Defense book *The Effects of Nuclear Weapons*
- ◆ 1957 edition (low quality 30.6 MB PDF file) of entire U.S. Department of Defense book *The Effects of Nuclear Weapons*
- ◆ 1962/64 edition (high quality 188 MB PDF file) of major revised sections in the U.S. Department of Defense book *The Effects of Nuclear Weapons*
- ◆ 1962/64 edition (high quality 43.8 MB PDF file) of 74 pages of subsequently deleted material dealing with thermal ignition of houses at nuclear tests and civil defense countermeasures chapter, from the U.S. Department of Defense book *The Effects of Nuclear Weapons*
- ◆ 1977 edition (single 36.8 MB PDF file) of U.S. Department of Defense book *The Effects of Nuclear Weapons*
- ◆ Bill Forstchen, "One Second After" book about EMP attack risk and its effects on USA.
- ◆ U.S. Department of Energy Opennet Documents Online (includes many Nevada and Pacific nuclear test reports as PDF files)
- ◆ Defense Technical Information Center (DTIC)'s Scientific and Technical Information Network (STINET) Service (other declassified Nevada and Pacific test reports)
- ◆ Highlights from ABM testing history
- ◆ THAAD Goes Another ABM Test
- ◆ Alex Wellerstein's Restricted Data blog contains some interesting news (but beware of his uncritical use of unobstructed dry desert and nude skin thermal radiation and other effects predictions from the 1977 edition of Glasstone and Dolan; he deletes critically objective comments and pretends that honest criticisms of propaganda as being ignorant deception are rude as an excuse for ignoring the facts and refusing to engage in objective discussion of controversial aspects of this topic; basically if you pay homage and engage in groupthink bias you may be tolerated).
- ◆ Carey Sublette's Nuclear Weapon Archive (it contains errors from Chuck Hansen's compilation, and it is concentrated on bomb building, not on civil defence countermeasure evaluations done at nuclear tests; note that Chuck Hansen's books and CDs

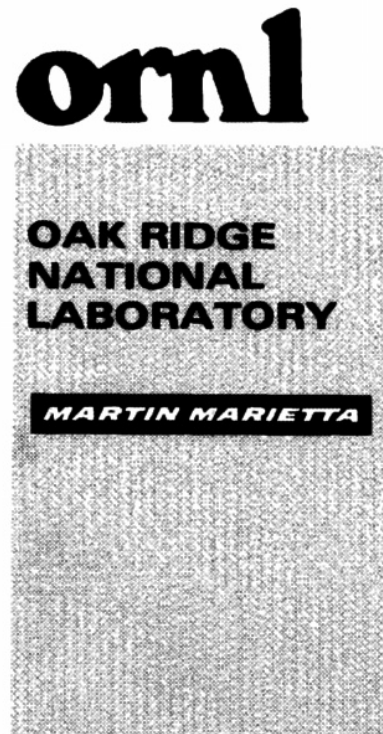
give a false quotation from Neil O' Hines's book *Proving Ground* on the effects of the 1952 Mike explosion on nearby Engebi Island, where Hines later in the book states that the native rats in fact *survived the intense close-in blast, heat and fallout under a few unches of soil, despite the initial ignorant belief that they could not have survived!!!*)

- Quantum Field Theory
- Los Alamos Science journal
- Excellent particle physics gauge theory (fundamental force interaction) issue of Los Alamos Science journal
-





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**Technical Options for
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New photos of non-collapsed Nevada houses after 5 ...



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Everybody has the ability to detect and measure fa...



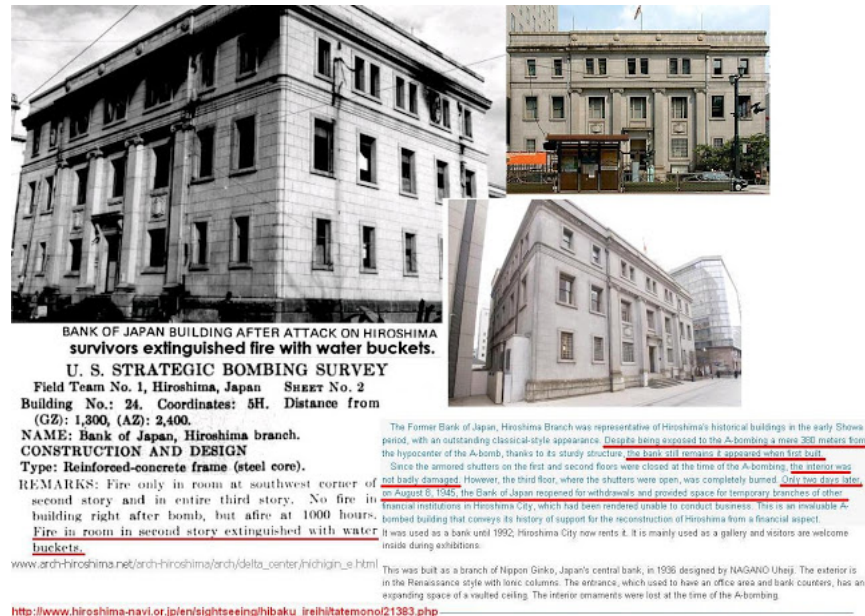
A problem with hate propaganda from CND's anti nuc...



Truth is the freedom to interpret all of the facts...



Trump's democratic success finally exposes for all...



The Bank of Japan, Hiroshima, survived 380 m from Ground Zero, within the firestorm area, when fires were extinguished by water buckets by its survivors, the majority of people in the building having survived. Secret US Strategic Bombing Survey report proves civil defense for modern concrete buildings is effective. The building was reopened as a bank 8 August, merely two days after nuclear attack, and continued in use as a bank until 1992. It remains in Hiroshima. This beautifully designed and sturdy reinforced concrete building was designed in 1936 by Nagano Uheiji. Cook's law: "Any man called Godwin who claims it is immoral to learn the lessons from the results of Nazi racist eugenics pseudoscience and to apply those lessons to those terrible media dominating celebrity-taboo-lovers who appease, cover-up, or defend the continuation of an evil, irrational pseudoscience which is causing unnecessary suffering today, is defending injustice, inhumanity and irrational consensus evil and is not behaving as a humane, objective, person. We need to ensure that the worst mistakes of the past are never repeated, if we are just, moral and caring towards our fellow human beings who do not deserve to be fed lies and dangerously complacent one-sided, biased propaganda based on a populist love of obsolete dogma, and/or a hatred of the search for objective fact, by pseudo-educationalists who prefer to live in utopia than in the real world of their fellow folk!"